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COUNTY BOROUGH OF WARRINGTON.

Annual Report
TO THE
Education Authority
ON
SCHOOL HYGIENE.

For the Year

1934

BY

G. W. N. JOSEPH, M.D., D.P.H.

*Medical Officer of Health
and School Medical Officer.*



WARRINGTON:

PRINTED BY MACKIE & CO. LTD., THE GUARDIAN PRESS.
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TO THE EDUCATION AUTHORITY OF THE COUNTY BOROUGH OF WARRINGTON.

Ladies and Gentlemen,

I beg to submit to you herewith, my Twenty-Second Annual Report on School Hygiene, viz., that for the year 1934.

Out of the 12,431 children attending our Public Elementary Schools, 5,170 or 41.5 were medically examined during the year (exclusive of re-examinations) either at Routine Medical Inspection in the schools or at various special inspections, either in the schools or at the Clinic.

In addition, the children attending the Boteler Grammar School and the Secondary School were also kept under supervision (pages 55 and 72).

In the Elementary Schools the number of individual children found at the Routine Medical Inspections with defects requiring treatment (exclusive of uncleanness and dental disease) was 428 or 13.38% of those examined (page 9).

Practically all these defects found during the year received satisfactory treatment.

At our School Clinic 364 children attended on 2,811 occasions for the treatment of minor ailments. In addition the Nurses carried out 30,610 dressings in the Schools (page 23), thus obviating the necessity of excluding the children from attendance.

The nutrition of the children received special attention in 1934, and during the latter half an important inquiry into the problem was commenced by Dr. Paulusz in collaboration with Dr. Magee of the Ministry of Health (see pages 61 and 66).

The assessment of the number of children who required a daily ration of milk on account of under-nourishment, took up a great deal of the time of the School Medical Staff and, not completed at the end of 1934, delayed considerably the compilation of the statistics necessary for the Annual Report, which therefore on this occasion is later than usual.

Two other matters of great importance to our School Medical Service that occurred during the year, require special mention, namely, the appointment of an additional School Dental Officer (page 30) and the completion of arrangements for the establishment of a class for partially-sighted children (page 27).

The work of the Orthopædic Clinic has, as usual, been most successful, and there is a gradual decline in the severe cases of crippling in school children.

The two Dental Officers, Messrs. Crosbie and Winstanley, have carried on the work of their department very successfully during the year (pages 30—34).

Dr. Paulusz has ably performed the duties of Assistant School Medical Officer, and I have to thank him for many of the statistics that follow.

The excellent work too, of the School Nurses is referred to in the body of the Report.

There were several changes in the Nursing Staff—Miss Webb resigned in August, 1934, and Miss M. J. Abraham was appointed to fill the vacancy. Miss Doris Gray was granted leave of absence for twelve months and Miss H. K. Coventry was appointed temporarily to fill the vacancy.

Mr. Flood, Chief Sanitary Inspector, has, as always, given me much valuable assistance in investigating and supervising the sanitary condition of the Schools.

I desire to convey my best thanks to Mr. C. E. Stewart, Chief Education Officer, and his Staff for their assistance in collecting much of the information contained in this Report.

Lastly, I would like to place on record my appreciation of the cordial support always rendered to me by the Members of the School Medical Service Committee and the Local Education Authority.

I am, Gentlemen,

Your obedient Servant,

G. W. N. JOSEPH.

May, 1935.

(See also page 59)

It will be noted that a considerable number of the entrants to our Schools have previously attended at one of the Infant Welfare Departments. Only once in the last dozen years (viz., in 1931) was the proportion thus attending higher than in 1934.

3.—SANITARY CONDITION OF THE PUBLIC ELEMENTARY SCHOOLS.

On the 31st December, 1934, there were 23 Public Elementary Schools divided into 48 departments and there were 2 Secondary Schools.

During the year the following new Schools were opened :—

Bewsey Senior School (accommodation 960).
Richard Fairclough Senior School (accommodation 960).
St. Alban's Infant School (accommodation 150).

The following Schools were closed :—

Arpley Street,
St. Peter's.

All the children from St. Albans' Infants' School were transferred from King Street to the new building in Bewsey Road.

Return showing the number of Schools, the accommodation, the number of children on the registers and the average attendance for the year ending 31st March, 1935.

	No. of		Accommodation.	Average No. on Books.	Average Attendance.
	Schools.	Depts.			
Council Schools	9	24	9500	7270	6632
Church of England Schools	9	15	5032	2935	2646
Roman Catholic	5	9	2401	2226	2017
Secondary	2	—	550	510	—

The following schools were cleaned and decorated in 1934 :—

Bolton Council.
Evelyn Street Council.
St. James' Church of England.
Oakwood Avenue Council.
St. Benedict's R.C.
St. Mary's R.C.

Supervision is constantly given to the hygienic conditions, especially as regards their surroundings, ventilation, lighting, heating, equipment and sanitation. Full details of all schools have been given in previous Reports (notably that for 1922).

There are now only two schools in the town in which the antiquated pail closet system is still installed, viz. :—

Trinity (Infants) and St. Barnabas.

A description of the new Bewsey and Richard Fairclough Council Schools was given in the 1933 Report.

These buildings are designed upon the most modern system and are “fresh-air schools” with all classrooms provided with French windows running the full width of the various rooms on each side so that they can be thrown fully open during seasonable weather.

4.—MEDICAL INSPECTION.

The Routine Medical Inspections are conducted by the Assistant School Medical Officer (Dr. Paulusz) during the afternoons at the various schools in the Borough.

All routine inspections are made on the school premises (Article 44B). The Board of Education schedule of medical inspection is followed in every instance, and there has been no disturbance of the ordinary school arrangements.

Age Groups Inspected.

Opportunity is offered for every school child to be thoroughly medically examined at least three times during attendance at a Public Elementary School, viz. :—

As soon as possible in the 12 months following

- (a) their first admission to school (Entrant Group) ;
- (b) their attaining the age of 8 years (Intermediate Group) ;
- (c) their attaining the age of 12 years (Leaver Group).

During 1934, there was no alteration in the age groups inspected, but the routine inspection of the second and third groups (8 and 12 year-old children) was not completed, because of the additional work entailed in special examinations under the scheme for the provision of milk to under-nourished children.

The boys at the Boteler Grammar School were inspected by the School Doctor and Dentist for the first time and this routine examination will in future be made annually.

Routine Examinations.

In addition to the examinations of the children who were in the usual age groups, those children who were absent from the medical inspection in the previous year were again summoned for inspection.

The numbers dealt with in 1934 were as follows :—

(a) Elementary Schools.

Entrants	.....	.....	.....	.....	.....	1,143
Intermediate	.....	.....	.....	.....	.....	1,106
Leavers	.....	.....	.....	.....	.....	1,241
						3,490
						(boys 1,801
						girls 1,689)

(b) Secondary Schools	....	....	....	....	....	boys 360
						girls 145
						505

Further particulars of age and sex are given in Table Ia, page 72.

Contrasting recent years the number of routine inspections have been :—

1934	.....	.....	.....	.....	3,490
1933	.....	.....	.....	.....	4,069
1932	.....	.....	.....	.....	4,426
1931	.....	.....	.....	.....	3,831
1930	.....	.....	.....	.....	3,816
1929	.....	.....	.....	.....	4,178
1928	.....	.....	.....	.....	4,488
1927	.....	.....	.....	.....	3,681
1926	.....	.....	.....	.....	4,108
1925	.....	.....	.....	.....	4,013
1924	.....	.....	.....	.....	3,983
1923	.....	.....	.....	.....	4,107
1922	.....	.....	.....	.....	4,830

The extra amount of work involved in examining children under the provision of milk scheme was the main reason for the smaller number of routine examinations in 1934, compared with previous years.

For Secondary School Inspections see pages 72 and 73.

Special Examinations.

In addition to the routine medical inspections, many children are specially examined by the doctor each year. The teachers submit any special case to him in the schools after the routine inspection is ended, or special cases may at any time be sent to the School Clinic.

Thus in 1934 the following were dealt with :—

“Specials” at School and Clinic	.....	1,700
(Compared with 2,494 in 1933.)		

Re-Examinations.

Then again, various additional examinations and re-examinations are carried out, both in the Schools and the Clinic in connection with the following up of defects. The number of such Re-inspections was 1,449 (compared with 2,180 in 1933).

Excluding the examination of Secondary School Pupils, &c., there have been 6,639 medical examinations during the year of children attending our elementary schools (compared with 8,743 in 1933).

5.—FINDINGS OF MEDICAL INSPECTION.

Out of 3,490 children examined in our Schools at the Routine Inspections during 1934, 428 or 12.26% were found to require treatment for one or more defects (see Table IIA, page 73). In addition, a number with defects required to be kept under observation although no actual treatment was necessary at the time. Table IIA in the Appendix (page 73), gives a return of the various defects found, whilst the number of children affected is shown as follows :—

Number of individual children found at Routine Medical Inspection to require treatment (excluding uncleanliness and dental diseases).

Group.	Number of Children		Percentage of children found to require treatment.
	Inspected.	Found to require treatment.	
(1)	(2)	(3)	(4)
Code Groups :			
Entrants	1143	153	13.38%
Second Age Group	1106	140	12.65%
Third Age Group	1241	135	10.87%
Total (Code Groups)	3490	428	12.26%
Other Routine Inspections (Secondary School)	505	16	3.16%

The proportion of children in the Entrant Group showing defects 13.38%, was higher than that of the past 2 years, though not quite so high as the annual average for the past 10 years, viz., 13.65%.

In general, the proportion of defects found compares favourably with the average for the whole of England and Wales as indicated in the following table :—

Return Showing

- (1) The number of defects found among 3,490 children in the three age groups at the routine examinations, 1934.
- (2) The incidence of defects requiring treatment and observation per 1,000 children examined in 1934.
- (3) The average incidence of defects amongst school children throughout England and Wales.

Group of Defects.	Treatment.			Observation.		
	Number of Defects requiring treatment.	Incidence of Defects per 1,000 children inspected.	Incidence of Defects per 1,000 pupils in England and Wales in 1933.	Number of Defects requiring observation.	Incidence of Defects per 1,000 children inspected.	Incidence of Defects per 1,000 pupils in England and Wales in 1933.
Malnutrition....	13	3.7	11.1	44	12.6	12.8
Skin Disease....	41	11.7	9.6	—	—	2.0
Defects of Vision	168	71.5*	80.6*	1	.4*	40.6*
Squint	14	4.0	7.8	2	.5	4.3
Other Eye Diseases	27	7.7	7.4	1	.2	2.3
Defects of Hearing	—	—	3.3	3	.8	2.5
Otitis Media	2	.5	4.6	—	—	1.3
Enlarged Tonsils	95	27.2	20.1	101	28.9	44.8
Adenoids	7	2.0	3.1	4	1.1	3.6
Enlarged Tonsils and Adenoids	15	4.2	16.3	5	1.4	11.0
Other Throat and Nose Defects	—	—	7.1	3	.8	7.7
Defects of Speech	—	—	1.1	9	2.5	2.7
Organic Heart Disease	—	—	1.6	2	.5	3.5
Pulmonary Tuberculosis :						
(a) Definite	—	—	.1	—	—	.2
(b) Suspected	—	—	.5	—	—	.7
Non-Pulmonary Tuberculosis	—	—	.6	—	—	.9
Epilepsy	1	.2	.3	—	—	.4
Chorea	2	.5	.5	3	.8	.4
Other Nervous Conditions	—	—	1.2	—	—	2.0
Deformities :						
Rickets	10	2.8	1.2	—	—	2.6
Spinal	12	3.4	2.5	3	.8	1.7
Other Conditions....	3	.8	6.9	1	.2	5.8

* In calculating this figure the entrants have been left out of account.

The following are some of the points revealed by the year's work so far as the routine medical inspections by the School Medical Officer are concerned :—

(a) Nutrition and Malnutrition.

Close observation has been kept on the nutrition of children in our schools as usual, during the year.

The height and weight of every child is measured at the time of routine inspection, and the following table shows the average at different ages :—

AVERAGE HEIGHTS AND WEIGHTS, 1934.

	Heights.				Weights.					
	Boys		Girls		Boys			Girls		
	ft.	ins.	ft.	ins.	st.	lb.	ozs.	st.	lb.	ozs.
Entrants—										
5 years	3	5.1	3	4.7	2	11	3.5	2	11	9
6 years	3	6	3	5.2	2	13	1.7	2	12	11.4
7 years	3	9.6	3	9	3	6	8.8	3	3	7.7
8 years	4	0.1	3	10.1	3	10	12.7	3	7	4.6
9 years	—		4	2.2	—			3	10	0
Intermediates—										
8 years	4	0.1	3	11.8	3	12	4.5	3	10	10.7
9 years	4	1.3	4	1.3	4	2	15.5	4	1	1.1
10 years	4	4.3	4	3.3	4	13	8	4	8	0
Leavers—										
12 years	4	6.9	4	8.1	5	5	6.5	5	9	9.5
13 years	4	9.4	4	9.8	6	0	2.6	6	4	7.2

The high average weight for age found in previous years has been well maintained and in practically every age group the average weight exceeded that found in 1934. (The only exceptions being the 8-year-old and 9-year-old girls.)

Nutrition.

Great attention has been paid to the problem of the standard of nutrition of children attending our schools, with a view to the discovery of cases of under-nourishment.

The Board of Education in Memorandum 124, issued at the end of 1934, pointed out that it was desirable that statistical returns from all Local Education Authorities should be classified in a precise and uniform manner.

The returns (table IIA, page 74) are therefore, in accordance with this classification divided into Excellent, Normal, Slightly Sub-normal and Bad.

This classification is "made on clinical grounds and not based solely on the height and weight of the child." It is recognised that some variation in the standards adopted by Medical Officers may be unavoidable, but experience appears to show that, generally speaking, a clinical classification is more reliable than one based only upon a height-weight-age ratio. The main issue is to estimate the general well-being of the child. Such general assessment cannot as a rule be based upon any single criterion, such as any ratio of age, sex, height and weight, but should also have regard to other data derived from clinical observation, for example, the general appearance, facies, carriage, posture; the condition of the mucous membranes; the tone and functioning of the muscular system; and the amount of subcutaneous fat. An alert, cheerful child, with bright eyes and a

good colour may usually be accepted as well-nourished without demur. On the other hand a child who appears dull, listless and tired, who has a muddy complexion or stands slackly, is at once under suspicion and should be further examined. Too much reliance on a single sign may lead to error. Carious teeth and other local defects should not in themselves be regarded as evidence of faulty nutrition. It is the general impression which decides the issue."

It must be distinctly understood that the figures supplied in this table and in similar tables in past years refer only to the children in the three age groups examined at Routine Medical Inspections and not to the total children attending the public elementary schools in the borough. Roughly each year, about one-third of the children are thus examined (in 1934, 3,490 out of a school population of 12,431) and although the proportion, 8.28%, probably holds good throughout the whole, it would be necessary to multiply the number found under-nourished by three in order to find approximately the total number of children in our schools suffering from subnormal nutrition. In addition to these, however, children of all ages suffering from any abnormality are singled out for medical examination as "specials" but are not included in the following table :—

Nutrition. (See also pages 61 and 74)

Elementary—			Number examined.	Above normal.	Normal	Below normal.	Markedly defective
Entrants—							
Boys, age	5	.....	260	14	225	13	8
" "	6	.....	290	20	255	11	4
" "	7	.....	28	1	26	1	—
" "	8	.....	17	2	15	—	—
" "	9	.....	—	—	—	—	—
Girls, age	5	.....	236	17	204	13	2
" "	6	.....	271	21	231	17	2
" "	7	.....	34	3	29	2	—
" "	8	.....	6	1	3	2	—
" "	9	.....	1	—	1	—	—
Total			1143	79	989	59	16
Percentage				6.91%	86.52%	5.16%	1.4%
Intermediates—							
Boys, age	8	.....	538	44	443	44	7
" "	9	.....	48	3	43	1	1
" "	10	.....	3	—	3	—	—
Girls, age	8	.....	476	62	364	41	9
" "	9	.....	39	5	31	3	—
" "	10	.....	2	—	2	—	—
Total			1106	114	886	89	17
Percentage				10.3%	80.1%	8.05%	1.53%

		Number examined.	Above normal.	Normal.	Below normal.	Markedly defective
Leavers—						
Boys, age 12	.....	571	41	466	53	11
„ „ 13	.....	46	7	32	6	1
Girls, age 12	.....	577	72	415	74	16
„ „ 13	.....	47	13	25	8	1
Total		1241	133	938	141	29
Percentage			10.72%	75.58%	11.36%	2.33%
Elementary—						
Total	.....	3490	326	2813	289	62
Percentage			9.34%	80.6%	8.28%	1.77%
Secondary Schools—						
Boteler Grammar, Boys	146		24	95	24	3
Secondary, Boys	213		48	142	23	—
„ Girls	145		52	80	13	—
		504	124	317	60	3
			24.6%	62.89%	11.9%	.59%
Total		3994	450	3130	349	65
Percentage			11.26%	78.36%	8.74%	1.62%

A Summary of these findings is given in Form 8 b. M in the Appendix, page 72.

The next table contrasts the assessment of nutrition of the children for the past 12 years.

	Number examined	Above normal.		Normal.		Below normal.		Markedly defective.	
			%		%		%		%
1923	3782	44	1.1	3545	93.7	169	4.4	24	.6
1924	3983	55	1.3	3590	90.1	300	7.5	38	.9
1925	4013	51	1.2	3553	88.5	353	8.7	56	1.3
1926	4108	99	2.4	3586	87.2	374	9.1	49	1.1
1927	3681	105	2.8	3289	89.3	258	7.0	29	.7
1928	4488	107	2.3	3961	88.2	372	8.2	48	1.0
1929	4178	141	3.3	3641	87.1	345	8.2	51	1.2
1930	3816	150	3.3	3342	87.5	274	7.1	50	1.3
1931	3831	123	3.2	3434	89.6	225	5.8	49	1.2
1932	4426	245	5.5	3859	87.1	255	5.7	67	1.5
1933	4069	284	6.9	3495	85.8	232	5.7	58	1.4
1934	3490	326	9.34	2813	80.6	289	8.28	62	1.77

From the foregoing figures it is evident that whilst there is a considerable increase in the proportion of children with excellent nutrition, there is also an increase in the number of subnormal children.

The nutrition of the children attending the Schools in Warrington is really good, and the increase found in the proportion under-nourished in 1934 may be capable of explanation in the following facts—the smaller number of cases examined at Routine Inspection compared with former years, the meticulous attention paid to slight departures

from the normal, and the diphtheria epidemic which has been of a severe type and affected large numbers of school children (see page 43). These children, on returning to School, when convalescent were in many instances kept under observation re their nutrition.

(b) **Uncleanliness.**

Out of the 3,490 children examined by the doctor at the Routine Inspections only 48 or 1.3% were found to have verminous heads in greater or lesser degree. This continues to manifest a vast improvement, as is evidenced from the following table for the past 16 years.

1919	....	....	....	....	....	11.2%
1920	....	....	....	....	....	6.3%
1921	....	....	....	....	....	3.8%
1922	....	....	....	....	....	6.6%
1923	....	....	....	....	....	3.6%
1924	....	....	....	....	....	2.4%
1925	....	....	....	....	....	3%
1926	....	....	....	....	....	5.4%
1927	....	....	....	....	....	3.7%
1928	....	....	....	....	....	3.07%
1929	....	....	....	....	....	3.03%
1930	....	....	....	....	....	4.3%
1931	....	....	....	....	....	3.3%
1932	....	....	....	....	....	2.3%
1933	....	....	....	....	....	1%
1934	....	....	....	....	....	1.3%

It must be emphasised, too, that the standard of cleanliness expected is much higher now, and compared with 1919, for instance, the 1.3% of 1934 might almost be considered "clean."

It must be remembered that the early supervision of the scholars in the schools by our School Nurses accounts for a good deal of this improvement.

There are, however, a few cases which give far more trouble than they should, and further reference is made to this in dealing with the work of the School Nurses re Uncleanliness (page 39).

The clothing and footgear of the children are on the whole good, and it is remarkable how even in the poorest families, general tidiness is much more prevalent than formerly.

We have again to acknowledge our indebtedness to the Police Clothing Fund which, as usual, has been of great assistance to the poorer families.

(c) **Minor Ailments and Diseases of the Skin.**

Impetigo amongst school children has greatly diminished of recent years, and we rarely find those severe cases of involvement of the scalp that used to be so common, especially amongst girls, a few years ago. Out of 3,490 children examined at routine inspections, 18, or .5%, were found to be suffering from impetigo.

No cases of ringworm of the scalp, but 2 of ringworm of the body (.05%) were found, and only 7 (.2%) of scabies.

There was a decrease in the incidence of cases of conjunctivitis and blepharitis compared with the past year, as we found 24 cases (.6%), compared with .8% in 1933.

The continuous work of the Nurses in the schools is a factor in the large reduction of the minor ailments discoverable at routine inspections.

(d) Visual Defects.

59.38% of the children examined were found to have perfectly normal vision when examined at the school inspection amongst the two senior age groups, as the eyesight of the entrants is not tested unless under exceptional circumstances.

In the Intermediate and Leaver Groups, the vision of 2,312 children was examined and 183 children or 7.9% were found to require treatment.

The following table shows the results of the examinations of the two groups :—

Group.	No.	6/6	6/9	6/12	†W.G.	†T.	†N.G.I.
INTERMEDIATES.	Examined.						
Boys—Age 8	527	283	166	24	16	36	2
„ „ 9	45	29	8	1	1	6	—
„ „ 10	3	—	3	—	—	—	—
Girls— „ 8	468	253	138	22	17	38	—
„ „ 9	38	25	9	—	1	3	—
„ „ 10	2	1	1	—	—	—	—
LEAVERS							
Boys—Age 12	566	360	95	12	43	53	3
„ „ 13	44	31	9	—	3	1	—
Girls— „ 12	573	357	114	17	41	44	—
„ „ 13	46	34	7	—	3	2	—
Total	2312	1373	550	76	125	*183	5
Percentage		59.38	23.78	3.28	5.4	7.91	.21

* Includes 10 cases already on the Treatment list.

†W.G.—Wearing Glasses. T.—Treatment required. N.G.I.—No glasses improve.

The following is a summary showing the degree of defect among the 183 children requiring treatment :—

Number referred for refraction for :—

Vision—6/18 in both eyes	30
6/18 in one eye and good or fair vision in the other	38
6/24 in both eyes	8
6/24 in one eye and 6/18 in other eye	9
6/24 in one eye and good or fair vision in the other	12
6/36 in both eyes	4
6/36 in one eye and 6/18 or 6/24 in the other	8
6/36 in one eye and good or fair vision in the other	11

Vision—6/60 in both eyes	....	....	....	....	....	....	....	1
6/60 in one eye and 6/18, 6/24, or 6/36 in other eye	....	....	....	....	....	....	....	4
6/60 in one eye and good or fair vision in the other	....	....	....	....	....	....	....	6
less than 6/60 in both eyes	....	....	....	....	....	....	....	2
less than 6/60 in one eye and 6/18, 6/24, or 6/36 in other eye	....	....	....	....	....	....	....	6
less than 6/60 in one eye and good or fair vision in the other	....	....	....	....	....	....	....	4
With Squint	....	....	....	....	....	....	....	9
Glasses unsuitable and requiring re-examination	....	....	....	....	....	....	....	*31
								183

*Of the 31 cases requiring re-examination the degrees of defect were :—

Vision—6/6 in both eyes with glasses	....	....	....	....	....	....	....	8
6/9	”	”	”	”	....	....	....	12
6/12	”	”	”	”	....	....	....	6
6/18	”	”	”	”	....	....	....	1
Squint cases	....	....	....	....	....	....	....	4
								31

For treatment of visual defects see page 25.

(e) **Nose and Throat Defect.**

The total number of cases of nose and throat disease requiring treatment was 117 or 3.3% (compared with 2.4% the previous year).

For the treatment of enlarged tonsils and adenoids and the policy pursued with regard to operations, see page 28.

(f) **Ear Disease and Defective Hearing.**

At Routine Inspections 3 cases of defective hearing requiring observation were discovered and 22 cases of Aural Discharge.

(g) **Dental Defects.**

The School Medical Officer refers to the Dental Officer for treatment all children with four or more decayed teeth, or any children who are obviously suffering from lack of attention to the mouth.

During 1934, 33 such cases were discovered (compared with 102 in 1933).

(h) **Orthopædic and Postural Defects.**

Altogether 25 children suffering from these defects were found at the inspection and referred to the Orthopædic Surgeon, including cases of Rickets, Spinal Curvature, Flat Foot, Wry-Neck and old Infantile Paralysis (see pages 34 and 80).

(i) **Heart Disease and Rheumatism.**

2 cases of organic heart disease and 5 functional cases were discovered, and kept under special observation on this account. 4 cases of anæmia were found during Routine Inspection, and were kept under observation.

All these children and those exhibiting any rheumatic manifestations are kept under special supervision throughout the year.

All cases of Heart Disease, Chorea and Rheumatism are specially noted in the register of physically defective children.

(j) **Tuberculosis.**

No cases of any form of tuberculosis were discovered at the routine inspections.

Reference is made in the section on Infectious Diseases to the incidence of tuberculosis amongst the school children in the borough (page 44).

(k) **Other Defects and Diseases.**

ROUTINE INSPECTIONS.

			Requiring Treatment.	To be kept under observation.
Chicken Pox	....	....	2	—
Scarlet Fever	....	....	1	—
Sore Throat	....	....	6	—
Rash	....	....	1	—
Incontinence	....	....	1	—
Osteomyelitis	....	....	1	—
Flat Foot	....	....	1	—
Defective Foot Gear	....	....	8	—
Defective Clothing	....	....	10	—
Enlarged Thyroid	....	....	—	1
? Mentally Defective	....	....	—	3
Undersized	....	....	—	1
Cyst, Lower Lip	....	....	—	1
Hernia	....	....	—	1
Defective Gait	....	....	—	1
			31	8

SPECIAL INSPECTIONS.

Sore Foot	....	....	1	—
Incontinence	....	....	1	4
Sore Throat	....	....	2	—
Debility	....	....	—	1
Undersized	....	....	—	1
Backward	....	....	—	2
? Mentally Defective	....	....	—	2
Cleft Palate....	....	....	—	1
Cyst, Neck	....	....	—	1
Fainting Fits	....	....	—	1
Enlarged Axillary Glands....	....	....	—	1
			4	14

Exclusions.—All children suffering from contagious disease who may be a danger to the other children, and all cases in which the condition necessitates absence from school, are at once excluded by the A.S.M.O. at the time of his inspections. Slight cases are not excluded, but referred for treatment to the Nurses at their bi-weekly visits. The following are the cases excluded during 1934 at both routine and special inspections. In addition, 200 children were referred to the Nurses for treatment in schools as not being serious enough to exclude :—

	Exclusions.	Treatment in School.
Uncleanliness—Head	1	47
Body	2	26
Ringworm—Head	—	—
Body	1	1
Scabies	6	1
Impetigo	1	18
Other Skin Diseases	1	17
Blepharitis	1	22
Conjunctivitis	1	7
Stye	—	3
Otitis Media	—	2
Aural Discharge	—	21
Wax in Ears	—	12
Sore Throat	6	2
Chicken Pox	2	—
Scarlet Fever	1	—
Rash	1	—
Osteomyelitis	1	—
Incontinence	—	2
Defective Clothing	—	10
Defective Footgear	—	8
Sore Foot	—	1
Total	25	200
Number of children affected	24	193

Further examination of cases selected at the Inspections in the Schools.

The further examination of certain cases is made at the Inspection Clinic when necessary. These cases consist of children whom it is impossible to examine thoroughly during the Routine Examination.

In 1934 there were 437 such examinations made of 396 children. When a defect was discovered it was entered on the schedule card, and has been included in the foregoing statistics as though found at the original Routine Inspection.

Other Medical Inspection Work.

In addition to the Routine inspection work and the examinations of children in the schools in the afternoons, a large amount of work is done by the S.M.O. at the Clinic every morning (see page 22).

6.—“FOLLOWING-UP” OF CHILDREN SUFFERING FROM PHYSICAL DEFECTS AND WORK OF THE SCHOOL NURSES.

The procedure adopted in the following-up of the cases to see that defects found at Routine and other inspections are dealt with promptly and satisfactorily has been explained in former Reports.

The Tables at the end of the Report show the results obtained, but no record is given of the actual number of re-examinations made in each case by the doctor, or of the number of visits paid by the Nurses and School Attendance Officers in advising parents and in offering facilities for treatment.

Only as a last resort are parents summoned to attend before the School Medical Service Committee for not obtaining satisfactory treatment for their children (see page 51).

Work of the School Nurses.

The usual large amount of work has been carried out during the year 1934 in a very thorough manner in the Clinic, in the homes, and in the schools, by the Nurses—Miss Brown, Miss Griffith, Miss Wright, Miss Webb and Miss Gray (and later in the year by Miss Abraham and Miss Coventry). From February, 1934, the Nurses discontinued assisting in the Dental Clinic after the appointment of an attendant to the Dentists. Since then, each of four nurses has been responsible for her own district in the town and the fifth has acted as “supply” Nurse, relieving the others in turn and attending the Clinic in the mornings and medical inspection in the afternoon.

(a) IN THE SCHOOLS.

The town is divided into four districts and the schools in each area are visited twice every week by the nurse of that district—on Mondays and Thursdays—Tuesdays and Fridays.

The examination and dressing of the children are carried out either in the medical room or staff room in the newer schools, or where there is no such accommodation, in the cloak room or sometimes in a screened-off portion of a class room (see page 24).

The work comprises dressings of discharging ears, sore eyes, impetigo, eczema, supervision of minor ailments which are being treated at home, orthopædic cases, and all children who have been found unsatisfactory at a surprise visit, either nits, unclean, defective footgear, or clothing.

Classes in which cases of Scarlet Fever or Diphtheria have occurred are examined and suspicious cases excluded.

Any children sent by the teachers for sore throats, defects or neglect are also seen, and noted.

Each Wednesday a "surprise" visit is done to one of the schools by each nurse.

Every child in the school is seen by the nurse and examined for nits, cleanliness of body and clothing, and defective footgear. The names and addresses of all unsatisfactory children are taken and Home Visits are made whenever possible. All such children are seen at subsequent visits to the school :—

Per School Nurse.

Average number of visits to schools in 1 week	12
Average number of children seen	200—300
Average number of home visits	15

(b) IN THE HOMES AND IN THE SCHOOL CLINIC.

One nurse attends the minor ailments clinic in the mornings and routine medical inspections in the schools during the afternoon, followed by work in the clinic again at 4 p.m. attending to "after-school" cases. A large number of miscellaneous cases have been dealt with in the homes and in the schools.

Full particulars of this work are given on pages 24 and 25, and apart from this the following is a summary of the activities of the Nurses for the year 1934 :—

Visits paid to Schools to treat minor ailments	1,777
No. of Dressings in School (see page 24)	30,610
Visits to homes of children (in many cases assisting with treatment)	3,325
Attendances at Routine Medical Inspection in the Schools with the A.S.M.O.	179
Notices sent to teachers with reference to excluded children	503
"Surprise Visits" to Schools (see page 40)	192
Special Visits (to Schools) re Infectious Disease	232
Cases of tonsils and adenoids after operation kept under observation	223

7.—TREATMENT OF DEFECTS OF CHILDREN DURING 1934.

In endeavouring to secure treatment for ailing school children, use is made of all existing agencies, and in addition a large number of cases are referred under supervision for treatment in their own homes.

Whenever the circumstances warrant it, cases are induced to obtain treatment from a private medical practitioner.

A list of the days and hours of attendance at the various Clinics is given on page 21.

A.—Minor Ailments.

The Minor Ailment Clinic is open each day from 9 to 12 noon.

Re-examination after operation for tonsils and adenoids, 9 to 9.30 a.m.

Dressings of minor ailments, 9.30 to 12 noon.

“After-School” cases, 4 to 5 p.m., Mondays to Fridays.

With regard to the work in general, there has been a gradual tendency for a decrease in the incidence of minor ailments amongst school children, dating back to the introduction of the system of bi-weekly treatment by the Nurses in the schools.

This is shown in the following table :—

INCIDENCE OF MINOR AILMENTS.

	No. of children attending		No. having Home Treatment	No. of Treatments in the school Dressings
	Inspection Clinic	Treatment Clinic		
1921	3,011	1,853	973	50,408
1922	1,552	560	662	47,513
1923	1,113	349	362	37,451
1924	1,054	377	296	34,337
1925	925	395	218	33,529
1926	1,069	390	305	26,779
1927	2,535	1,633	303	31,639
1928	1,348	844	172	36,638
1929	897	388	247	28,139
1930	858	326	306	27,025
1931	953	363	310	32,837
1932	889	365	251	29,319
1933	810	363	215	23,763
1934	751	364	192	30,610

Minor ailments are potential sources of more serious conditions if neglected, and they certainly lead to a considerable loss of attendance at school of the children affected, thereby interfering considerably with their education.

Not only is the incidence of these ailments being reduced from year to year, but the severity of the conditions found is on the whole much less than in former years.

Inspection Clinic. (For cases referred by School Nurses, School Teachers, School Attendance Officers, and others.)

		Boys.	Girls.	Total.
Ringworm (Scalp)....	....	9	2	11
„ (Skin) ....	....	16	10	26
Conjunctivitis ....	....	39	42	81
Blepharitis ....	....	7	7	14
Aural Discharge ....	....	14	6	20
Impetigo (Scalp) ....	....	38	76	114
„ (Skin) ....	....	58	42	100
Scabies ....	....	29	14	43
Pediculosis (Scalp) ....	....	9	209	218
„ (Body) ....	....	12	3	15
Eczema ....	....	4	4	8
Corneal Ulcers ....	....	2	2	4
Miscellaneous ....	....	49	48	97
		286	465	751

(In 1933 the numbers were : Boys 314, Girls 496 ; Total 810.)

The miscellaneous cases consist of various ailments such as sores on the feet or legs, herpes, burns, bruises, abscesses, &c.

These cases were dealt with as follows :—

				Boys.	Girls.	Total
Referred to private practitioners....	....	....	....	33	42	75
„ „ Infirmary ....	....	....	....	16	15	31
„ „ School Clinic (excluded from school)	....	....	....	188	176	364
„ „ treatment at home ....	....	....	....	30	162	192
Found fit for school on first attendance....	....	....	....	19	70	89

So far as the Local Authority is concerned the treatment of minor ailments may be divided into 3 groups :—

1. Treatment at the School Clinic.
2. Treatment in the Schools.
3. Treatment in the Homes.

(1)—Treatment at the School Clinic.

When a child is suffering from an ailment that from its contagiousness may spread to other children, or when the attendance of a child in school may be harmful for other reasons, the case is excluded for treatment, and in the majority of instances of minor ailments this treatment is sought at the School Clinic.

The following table gives a summary of the cases dealt with in this way :—

Number of Cases Treated at the Clinic.

Disease.	No. of cases treated in School Clinic.	Total No. of attendances.	Average No. of attendances per case.	No. of days under treatment.	Average No. of days under treatment.
Ringworm (Skin)..	23	171	7.4	205	8.9
„ (Scalp)	10	189	18.9	365	36.5
Conjunctivitis.....	72	361	5.0	397	5.5
Impetigo (Skin)	89	739	8.3	902	10.1
„ (Scalp) ..	108	991	9.1	1274	11.7
Blepharitis, &c.	11	73	6.6	114	10.3
Aural Discharge....	18	111	6.1	123	6.2
Miscellaneous.....	33	176	5.3	269	8.1
Total	364	2811	7.7	3649	10.0
In 1933	363	2803	7.7	3533	9.7

This total of 364 which is also shown in Table IV., Group I. in the Appendix is not strictly comparable with statistics from other areas as only the severe cases are referred to the Clinic. Most cases of minor ailments are dealt with in the schools daily by the School Nurses.

In addition 381 children put in 1,095 attendances at the Clinic after school hours for defects which did not render it necessary for them to be absent from school.

Ringworm of the Scalp.

There has been a reduction both in the incidence of ringworm of the scalp and in the length of time taken to cure this disease since the provision of X-ray treatment for the condition by the Local Authority.

During 1934 the total cases dealt with in the Clinic were 10, of which 4 received X-ray treatment.

(2)—Treatment in the Schools.

Our arrangements for dealing bi-weekly with minor ailments in the schools have been detailed in previous Reports.

Altogether the Nurses paid 1,777 visits to the schools, an average of 77.0 to each, not including "surprise" visits. This average is lower than usual due to the illness for several months of one of the Nurses.

When considered necessary, the Nurses exclude any cases of contagious or infectious disease.

In this way 396 children (267 girls and 129 boys) were excluded for contagious conditions and 113 (71 girls and 42 boys) for suspected infectious disease.

In addition the Nurses submitted a list of children to the School Medical Officer for further examination for suspected defects.

The amount of work done in this connection by the School Nurses in 1934 is as follows :—

NUMBER OF DRESSINGS IN THE SCHOOLS.

	Boys.	Girls.	Total.
Impetigo (Scalp)	616	470	1086
„ (Skin)	8235	6473	14708
Eczema	1793	1607	3400
Eyes	2947	2700	5647
Ears.....	3083	2686	5769
	16674	13936	30610

There are approximately 200 school working days and this shows that more than 150 cases of minor ailments are dealt with by the Nurses in the schools each day apart from the work of the Clinic.

The total number of children attended to each year in school is seen from the following figures :—

	Number of School Dressings.		
1934			30610
1933			23763
1932			29319
1931			32837
1930			27025
1929			28139
1928			36638
1927			31639
1926			26779
1925			33529
1924			34337
1923			37451
1922			47513
1921		...	50408

In addition to the dressings and apart from the work of "surprise visits," the Nurses supervise cases of uncleanliness and pediculosis, and in this connection 348 boys and 1,388 girls were examined on 1,642 and 24,328 occasions respectively, or an average of 4.7 for the boys and 17.5 for the girls.

(3)—Treatment in the Homes.

Certain cases are referred for treatment in their own homes, and have to attend from time to time at the Clinic for instruction and supervision as to the results of treatment.

Such conditions as pediculosis, uncleanliness, scabies, ringworm of the skin, cuts and bruises and various septic sores are generally dealt with in this way.

During 1934 the following received attention :—

	Boys.	Girls.	Total.
Pediculosis of the head	2	148	150
Pediculosis of the body and uncleanliness	7	3	10
Scabies	21	11	32
Miscellaneous	—	—	—
	30	162	192

There is a decrease in the number of cases, compared with the previous year.

The School Nurses visit the homes to advise the mothers with regard to treatment and to see that it is adequately carried out. Altogether 3,325 visits were paid in 1934.

B.—Treatment of Visual Defects.

Our arrangements with the Warrington Infirmary for dealing with cases of refraction have been continued as usual during the year.

From Table IV., Group II., on page 79, it will be seen that 403 cases of defective vision were dealt with during the year.

329 under the L.E.A.'s scheme,
18 by private practitioners,
56 otherwise.

Comparing the work for the past few years :—

No. of Defects dealt with—	1934	1933	1932	1931	1930	1929	1928	1927	1926	1925
(a) under L.E.A.'s scheme	329	330	332	334	341	305	335	268	316	342
(b) by private practitioners.....	18	12	15	24	27	29	34	39	36	54
(c) otherwise	56	56	32	46	60	67	54	71	52	49
	403	398	379	404	428	401	423	378	404	445
Carried forward into next year	102	133	100	98	110	114	116	111	53	55

Out of the 102 cases carried forward into the next year, 33 had already received their prescriptions, and were awaiting the provision of spectacles.

I am indebted to Dr. Fox, who carried out this work at the Infirmary, for the following Report of the cases dealt with :—

SUMMARY OF REFRACTION CASES DEALT WITH IN 1934.

	Hypermetropic Hyper- metropia.	Astig- matism.	Myopia Myopia.	Astig- matism.	Mixed Astig- matism	Total.
Vision improved	72	93	62	43	8	278
Vision not improved....	40	—	—	—	—	40
Defective Vision not due to errors of re- fraction	5	—	—	—	—	5
Normal Vision, or 6/9	7	—	—	—	—	7
Totals	124	93	62	43	8	330

Cataract 1, Corneal Nebulæ 2, Squints 24.

The number of Myopes, 105 out of 330 children examined, is steadily increasing.

The separation and special teaching for partially-sighted will be of great advantage both for those with low visual acuity and for these with increasing myopia.

A special examination and report for this purpose has been made of 26 children.

EDWARD FOX.

Squint Operations.

These are carried out by arrangement at the local Infirmary.

Cases are recommended for operative treatment by Dr. Fox during his examination of those children submitted to him for refraction, and the operations are performed by him.

During 1934, 7 cases (4 boys and 3 girls) were operated on for squint.

Provision of Spectacles.

The cost of spectacles in practically every instance is defrayed by the parents.

During 1934, 257 pairs were provided by the Local Education Authority. The cost of these, varying from 5/9 per pair for cylindrical and compound lenses, to 3/9 for spherical lenses, was recovered from the parents.

In addition, 20 children were supplied with spectacles by the Public Assistance Committee in cases where the parents were in receipt of relief and unable to pay the cost.

Prevention of Blindness.

Special reference was made in last year's Annual Report, to the features in our School Medical Service which have a direct bearing on this important subject.

Progress was made during the year in the establishment of a special class for partially-sighted children, and this was opened at Evelyn Street School early in 1935.

A difficulty has always been found in following up cases of seriously defective vision after they leave school, especially during the period from 14 to 16 years of age, until the child is old enough to become entitled to medical advice under the National Health Insurance Scheme.

To assist in meeting the need we have sent a special letter to the parents of any child suffering from defective vision at the time of the child's leaving school.

The following is a copy of the notice sent :—

Dear Sir or Madam,

Your child, ... has been kept under special supervision during school life on account of defective vision and is wearing suitable glasses at the time of leaving. It is of great importance that the eyes should be re-examined periodically (preferably by an eye specialist) to ascertain whether any alteration of the glasses or other treatment is required. This may be necessary for the child's welfare in two ways :—

- (1) The vision may seriously deteriorate and even suffer further damage through unsuitable or neglected treatment ;
- and
- (2) Unless any defective eyesight is corrected by glasses the child may be rejected for certain forms of employment on medical examination by the Factory Surgeon.

It is a mistake to think that the wearing of glasses handicaps a child in obtaining employment. It is chiefly when a child that requires glasses, is wearing unsuitable ones or none at all that a grave risk is run of rejection on account of defective vision when examined by the Works Doctor.

In any case of doubt or difficulty in obtaining advice or treatment after the child leaves school, and especially until the child comes within the scope of the National Health Insurance Act, the Medical Officer of Health will, on application to him at the Health Department, be pleased to give full information of the facilities available in the district.

Yours, faithfully,

G. W. N. JOSEPH,
Medical Officer of Health.

In this connection during 1934, 169 such letters were sent and in several instances parents consulted the Medical Officer with reference to facilities available for further treatment.

Our scheme for the provision of a special class for partially-sighted children at Evelyn Street School received the approval of the Board of Education at the latter end of 1934 and was put into operation soon afterwards.

C.—Treatment of Defects of Nose and Throat.

From Table II. A. (page 73) it will be observed that the following defects of the nose and throat were referred for treatment :—

	At routine inspections.	At "special" examinations.
Chronic Tonsillitis	95	107
Adenoids only	7	16
Chronic Tonsillitis and Adenoids	15	59
Other conditions	—	1
	117	183
	300	

In 1933 there were 262 similar cases, and 292 in 1932.

A large proportion of the "special" examinations are cases referred by general practitioners asking that the child be dealt with by the School Authority.

267 received treatment during the year as follows (see page 80, Table IV., Group III.) :—

By operation	{ Under the L.E.A.'s Scheme	....	....	....	208
	{ By private practitioners	....	....	....	5
	{ Other forms of treatment	....	....	....	54
					267

The following is a summary of the cases dealt with at Warrington Infirmary for which we are indebted to Mr. Archer, who carries out the work :—

SUMMARY OF NOSE AND THROAT CASES DEALT WITH IN 1934.

Defects.	Satisfactory after operation.		Unsatisfactory after operation.		Totals.		Grand Total.
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	
Tonsils	1	3	—	—	1	3	4
Tonsils and Adenoids	93	95	—	—	93	95	188
Adenoids	—	1	—	—	—	1	1
Other Defects	3	4	—	—	3	4	7
Cases failed to report for discharge	4	4	—	—	4	4	8
Totals	101	107	—	—	101	107	208

For many years now, great care has been exercised in the selection of cases of children requiring operative treatment for enlarged tonsils and adenoids and such a course has only been advised when the child shows signs of deafness, of marked nasal obstruction, or other serious defects as a result.

Recently this policy has been even more stringently enforced and the following memorandum of instructions was drafted for our Medical Officers, with the approval of the Consultant nose and throat specialist, and this too was circulated to the general practitioners for information :—

SCHOOL MEDICAL AND MATERNITY AND CHILD WELFARE SERVICE.

Treatment of "Tonsils and Adenoids."

There is a steadily increasing consensus of opinion that operative treatment for the above conditions has been overdone in the past.

Mere hypertrophy of the tonsils can seldom be considered as a pathological condition calling for treatment, and Sir George Newman in his statistical returns now no longer uses the term "enlarged tonsils" but has replaced it by "chronic tonsillitis." No case of hypertrophied tonsils should be advised to undergo operation if it can possibly be avoided.

Enlarged adenoids when causing symptoms of obstruction should be removed, but the finding of mouth-breathing alone is an unsafe guide in the diagnosis of this condition, which should be confirmed in every instance by palpation of the naso-pharynx.

The following points are of importance :—

- (1) There is very rarely indication for urgency in carrying out operative treatment for either diseased Tonsils or enlarged Adenoids. Six months' delay in the great majority of cases will not prejudice the issue.
- (2) It can be said that operation benefits definitely only those who are mouth-breathers, or suffering from frequent sore throats and perhaps those who have repeated colds in the head or otitis. It is doubtful whether it affects chronic enlarged glands of the neck.
- (3) Predisposing factors are :—
 - (a) Diet lacking in Vitamins A and D ;
 - (b) Septic teeth ;
 - (c) Mouth-breathing.
- (4) The following procedure should be carried out when any child is found suffering from Diseased Tonsils or enlarged Adenoids :—
 - (a) The child must in the first place be referred to the School Dentist whether the teeth are decayed or are apparently sound. There appears to be no danger in the administration of nitrous oxide anæsthesia in these cases.
 - (b) Parents must be impressed with the need for Dental Treatment prior to any operation. Should the parent refuse to allow Dental treatment to be carried out it will be necessary to inform him or her that the operation will, ipso facto, not be performed.

- (c) Instructions to be given to the parents as to the child's diet, with special reference to Vitamins A and D. The parent should be encouraged to come up to the Clinic for instruction as to proper breathing exercises, and other conservative treatment according to Mr. Archer's recommendation.
- (d) No case is to be referred for operation except under very special circumstances prior to having at least six months conservative treatment and observation and also unless the Dental Surgeon certifies that the mouth is free from Dental Sepsis.
- (e) Exception must be made in cases referred by General Practitioners with a definite recommendation or request for operation.

G. W. N. JOSEPH, M.D., D.P.H.,

Medical Officer of Health and School Medical Officer.

Health Department, Sankey Street,
Warrington, December, 1934.

Use of chloroform as an anæsthetic in throat operations.

In accordance with the warning in Sir George Newman's latest report on the Health of the School Child, which stresses the danger of producing chloroform anæsthesia for tonsils and adenoid operations in children instructions were given to the Resident Medical Officers in our Municipal Hospital.

In addition, the attention of the Medical Board at the Local Infirmary was called to the matter in relation to any cases dealt with at that Institution under the arrangements made for the treatment of school children on behalf of the Local Education Authority.

It has now been agreed to insert on the Return of Cases of tonsils and adenoid operations from the hospital the kind of anæsthetic used in every instance.

D.—Treatment of Dental Defects.

The additions to the School Dental Staff contemplated in 1933 were made early in 1934, when a second School Dentist (Mr. L. C. Winstanley, L.D.S.) and a Dental Attendant (Miss A. Shaw) were appointed.

Dental Attendant.

The work of the Dental Attendant consists of preparing the clinic, cleaning and sterilising instruments, and assisting the operator in conservative work. She prepares the patients for anæsthetics and assists with patients recovering from anæsthesia. There is always a School Nurse available in the adjacent minor ailment clinic if required.

The Dental Attendant too, does a small amount of clerical work, entering records, fees, etc.

General Anaesthetics.

The practice with regard to anæsthetics now is that all such cases are taken in the mornings only, when not only both dentists are present together with at least one school nurse, but the medical staff is also on the premises.

General anæsthetics are given by the Dentists, one acting as Anæsthetist, the other as operator.

A mixture of nitrous oxide gas and oxygen is the only type used.

This combination gives complete, but perfectly safe anæsthesia for children. It is of short duration with an entire absence of unpleasant after-effects.

No patient is allowed to leave the clinic until seen by the Dentist.

Out of 3,968 cases treated in 1934,

25% or 1,020 were given general anæsthetics, and

75% or 2,948 were given local anæsthetics.

The ideal we are aiming at, is that every child in our schools should be seen each year and any requiring treatment should be dealt with during the same period.

At present a complete survey takes about 18 months. The entrant group was started by Mr. Crosbie in November, 1933, and it is expected that all the children attending our public elementary schools will have been seen by March, 1934.

This period will be reduced more and more as time goes on, because apart from the fact that we now have two dentists, the more regularly the cases are seen the less treatment will be required and the quicker the age groups can be disposed of.

Furthermore, the work of the dental service among the pre-school children will undoubtedly lessen the amount of work required in the schools.

The following summarises the dental work of 1934 (see also Table IV, group 80, page 81):—

Elementary Schools.

	No. of children.	
	1933	1934
Routine inspections by Dentist	2549	7810
Special inspections by Dentist	2136	1774
Total inspections....	4685	9584
Found to require treatment (from Routine Inspection)	1936 75.9%	5719 (=73.2% of those inspected).
Actually treated (from Routine Inspection)	1209 62.4%	2877 (=50.3% of those requiring it).
Of the "Specials" 100% received treatment.		

I am indebted to the School Dental Surgeons (Mr. E. Crosbie, L.D.S. and Mr. L. C. Winstanley, L.D.S.) for the following report on their work :—

Ladies and Gentlemen,—

In previous years it has only been possible to inspect and treat the children of the schools from the entrant group, to the children of the intermediate group, i.e., the ages of 8—11 years. The older or leaver group of children, i.e., 11—14 years, have had to be omitted from the scheme, and have only received treatment as special cases or on the parents initiative in seeking advice and treatment for them.

A more important point, however, was that an interval of 2 years elapsed between the inspection of each child. Much damage can be done to the dentition of a child during that time, and when re-inspected it was found that a large majority were again in need of treatment.

With an additional Dentist appointed to the staff it was possible to include the leaver group in the Routine Inspection.

The Entrant Group was commenced in November, 1933, and completed in May, 1934. The Intermediate Group followed, and was completed in November, 1934. At present the Leaver Group is being inspected, and it is expected that this will be completed in March or April, 1935. The time taken to inspect the whole of the children of the schools is 17 months.

During the year, however, there has been the Annual Inspection of the pupils of the Secondary School, and also this year the pupils of the Boteler Grammar School.

The actual treatment of the children takes a very much longer time than the inspections, and whilst it is not possible to estimate the length of time that will be taken to complete the treatment, it is, however, possible to compare the amount of treatment for the present year with the previous year.

In 1933 :—

Treatment consisted of 9 sessions per week.

5 sessions devoted to Extractions.

4 sessions to Conservative Work.

Inspection at Schools occupied 2 sessions per week.

Number of cases summoned—352 per month.

In 1934 :

Treatment consisted of :—

15 sessions per week.

4 sessions devoted to Extractions.

11 sessions devoted to Conservative Work.

Inspections at schools occupied 5 sessions per week. If more Routine Treatment is carried out, it follows that more Routine Inspections must also be carried out. There has therefore been an increase of 3 inspection sessions per week.

Treatment. Now carried out every day at the Clinic. Whilst the number of sessions devoted to Extractions remains almost the same, the number of sessions devoted to Conservative treatment have increased from 4 to 11 sessions, an increase of 7 sessions.

Conservative Treatment requires a much longer time to complete and therefore the number of cases summoned is smaller than the number summoned for Extraction Sessions.

The number of cases summoned, 584 per month.

The number of cases summoned for a year would be approximately 7,000.

Two sessions per week are now set aside for the treatment of special cases.

The Dentist taking the inspections devotes the morning s to Conservative Treatment and is ready, when required, to assist in the administration of General Anaesthesia.

The inspections have again been reduced to the minimum number of sessions to allow as much time as possible to be devoted to treatment. As in previous years little talks have been given to the older children at the School Inspections ; may we here record our appreciation and thanks to the Teaching Staffs of the Schools for their readiness to assist us, when visiting the schools. We have also had during the year another visit by Mrs. Turnbull and Mrs. Boxer from the Dental Board, to give lectures to the children, which were extremely interesting and easily understood. There is no doubt that these lectures are a valuable asset to the School Dental Service.

Earlier in the year, when treating the Infant and Intermediate Groups, we had a noticeable increase in the number of parents present at the School Inspections ; but with the older children inspected, the number of parents present has been very disappointing ; the average being only four parents to every 50 children.

The importance of this presence of parents at Inspections has always been stressed.

It sometimes happens that children do not attend the clinic when summoned. The treatment required is not obvious to the parent and the parents therefore think that their childrens' teeth are in sound condition and that attendance is unnecessary. If the parents were present at the inspections such defects could be pointed out to them and the teeth saved instead of having to be extracted later on.

The total number of Routine Inspections for 1934 was 9,584—which number includes 1,774 special cases ; of these 7,493 were referred for treatment, and 4,651 were actually treated. Compared with the previous year the number of Special Cases shows a decrease of 362. It follows that if double the amount of Routine work is carried out the number of Special cases should, automatically decrease.

Seconday School.

The whole of the pupils of the Secondary School were inspected and treated.

The number inspected was 356, of whom 226 were referred for treatment. The number referred for treatment shows a decrease on the previous year.

In addition to the Secondary School, the pupils of the Boteler Grammar School were inspected for the first time.

The result of this inspection has been somewhat unsatisfactory. There are at the school 165 pupils, of whom 99 reside outside the Borough, and are therefore not eligible for treatment. The opportunity was, however, given them to be inspected and advised as to their treatment.

If treatment was found to be required the parents were notified and advised to see their own Dentists.

The majority of them did not want the inspection, as they already were receiving private treatment. Of the remaining pupils residing in the Borough only 30 accepted treatment.

We have again to record our appreciation and thanks to Dr. Paulusz, to the Education Department's Staff, and to all who have assisted us during the past year.

We are,

Your obedient Servants,

E. CROSBIE,
L. C. WINSTANLEY,
School Dental Surgeons.

E.—Orthopædic Treatment.

The Orthopædic Clinic at the Borough General Hospital, under Mr. Harman Taylor, Liverpool, was carried on successfully, as in previous years.

No. of first examinations by the Surgeon	....	....	....	64
No. of cases dealt with at the Clinic during the year	....	....	....	176
No. of cases in which operations have been performed	....	....	....	9
No. of children who have attended the Clinic for remedial treatment	....	....	....	96
No. of cases in which appliances have been ordered	....	....	....	*23
No. of X-ray examinations	....	....	....	22

*This includes repairs, alterations, &c. (15 cases).

The types of cases were as follows:—

Infantile Paralysis	....	....	....	....	....	33
Curvature of Spine	....	....	....	....	....	31
T.B. Hip....	....	....	....	....	....	1
T.B. Spine	....	....	....	....	....	1
T.B. Elbow	....	....	....	....	....	1
Rickets	....	....	....	....	....	21
Knock-Knee	....	....	....	....	....	5
Bow-legs	....	....	....	....	....	7
Inturned Foot	....	....	....	....	....	3
Flat Foot	....	....	....	....	....	9
Pes Cavus	....	....	....	....	....	1
Pes Calcaneus	....	....	....	....	....	1
Drop Foot	....	....	....	....	....	2
Deformity of Foot	....	....	....	....	....	4
Club Foot	....	....	....	....	....	6
Defective Gait	....	....	....	....	....	4
Hammer Toe	....	....	....	....	....	1
Postural Scoliosis	....	....	....	....	....	1
Torticollis	....	....	....	....	....	5
? Hip Disease	....	....	....	....	....	4
Weakness of Spine	....	....	....	....	....	1
Winged Scapulæ	....	....	....	....	....	1

Weakness of Left Shoulder	....	....	....	....	1
Weakness of Legs	....	....	....	....	6
Weakness of Arms and Legs	....	....	....	....	2
Paresis of Left Leg	....	....	....	....	1
Paresis of Left Arm	....	....	....	....	1
Anæmia and Debility seq. Rheumatism	....	....	....	....	1
General Muscular Weakness	....	....	....	....	2
Finger Deformities	....	....	....	....	5
Synovitis of Knee	....	....	....	....	1
Arthritis	....	....	....	....	1
Baker's Cyst	....	....	....	....	2
Frontal Sinus Deformity	....	....	....	....	1
Paresis (Post Diphtheritic)	....	....	....	....	1
Facial Nerve Paresis	....	....	....	....	1
Re-Sterno Clavicular Joint	....	....	....	....	1
Old Fracture of Rib	....	....	....	....	1
Cyst of Right Knee	....	....	....	....	1
Keloid	....	....	....	....	2
Macrocheilia	....	....	....	....	1
Abnormal Cervical Spine	....	....	....	....	1
Total					176

OPERATIONS PERFORMED—

	1930	1931	1932	1933	1934
Osteotomy	7	—	2	2	2
Stabilisation	1	1	—	—	—
Steindler's	5	1	3	—	1
Wrench and plaster	5	2	2	4	—
Plaster applied	1	1	2	1	1
Tenotomy	2	1	3	1	2
Fasciotomy	—	—	—	—	1
Re-setting epiphysis	—	—	—	—	—
Neurectomy	1	—	—	—	—
Plastic operation	2	—	1	1	—
Removal of supernumerary digit	1	—	—	—	1
Tendon transplantation	1	—	—	—	—
Removal of Cysts	—	—	—	4	—
„ „ Cervical rib	—	—	—	1	—
Others	4	2	1	1	1
	30	8	14	15	9

MASSAGE, ELECTRICAL TREATMENT & REMEDIAL EXERCISES—

With regard to massage and other forms of treatment, the following are the attendances for the past three years :—

	1932		1933		1934	
	No. of children	No. of attendances	No. of children	No. of attendances	No. of children	No. of attendances
January	26	114	27	136	38	163
February	25	158	29	168	39	195
March.....	28	147	39	308	44	239
April	26	132	30	179	46	233
May	29	172	32	218	59	282
June	31	169	31	128	55	279
July	36	158	27	127	39	172
August	30	166	25	169	30	124
September	29	176	31	254	38	183
October	24	156	35	183	39	210
November	29	153	39	224	38	209
December	29	169	37	171	37	175
Average per month	29	155	32	189	42	205

IONISATION TREATMENT—

Selected cases of aural discharge are treated at this Clinic by the zinc ionisation method.

No. of cases of aural discharge dealt with	= 26 (of these 15 were new cases)
No. of cases of aural discharge who received ionization	= 26
No. of cases of aural discharge cured	= 11
No. of cases of aural discharge left school	= 1

Altogether 599 attendances were made or an average of 23 per case treated.

RESULTS OF ORTHOPAEDIC TREATMENT.

The following cases have been discharged from the Orthopaedic Clinic in 1934 :—

No Further Treatment Required.

General Muscular Weakness	1
Rickets	15
Weakness of Legs	6
Drop Foot	1
Curvature of Spine	13
Talipes	1
Hammer Toe	1
Congenital Dislocation of Hip....	1
Weakness of Spine	1
Inturned Foot	1
Pes Cavus	1

Old Fractured Rib	....	....	....	....	....	1
Flat Foot	....	....	....	....	....	3
Finger Deformity	....	....	....	....	....	3
Torticollis	....	....	....	....	....	2
Keloid	....	....	....	....	....	1
Baker's Cyst	....	....	....	....	....	1
Defective Gait	....	....	....	....	....	3
Frontal Sinus Deformity	....	....	....	....	....	1
Rickets and Spastic Paraplegia	....	....	....	....	....	1
Cyst on Knee	....	....	....	....	....	1
Prominence on Dorsum of Foot	....	....	....	....	....	1
Osteoma of Left Index Finger	....	....	....	....	....	1
Hallux Valgus	....	....	....	....	....	1
Infantile Paralysis	....	....	....	....	....	7
Paresis (post Diphtheritic)	....	....	....	....	....	1
Sterno Clavicular Joint	....	....	....	....	....	1
Macrocheilia	....	....	....	....	....	1
Synovitis of Knees	....	....	....	....	....	1
Over-riding Toe	....	....	....	....	....	1
Facial Nerve Paresis	....	....	....	....	....	1
Abnormal Cervical Spine	....	....	....	....	....	1
						76

Transferred to Tuberculosis Department.

T.B. Spine	....	....	....	....	....	2
T.B. Hip....	....	....	....	....	....	1
						3

Ceased to Attend.

Curvature of Spine	....	....	....	....	....	1
Rickets	....	....	....	....	....	1
						2

Over-age Transferred to Adult Clinic.

Curvature of Spine	....	....	....	....	....	1
Infantile Paralysis	....	....	....	....	....	1
Curvature of Spine, Flat Foot and General Muscular	....	....	....	....	....	1
Atrophy	....	....	....	....	....	1
						3

I am indebted to Mr. Harman Taylor, our Orthopædic Surgeon, for the following remarks on the scheme :—

During the year 1934, the work in the Orthopaedic Department has been carried on as in previous years. There has been a diminution in the number of severe cases as compared to previous years. This fact, I attribute to the work in the Maternity and Child Welfare section. In this section, children between the ages of one year and five years, are referred by the Medical Officer in charge of this section for diagnosis and treatment in the Orthopædic Clinic. Consequently, when these children reach school age, the greater part of the treatment has already been undertaken by the Maternity and Child Welfare section. On reaching school age, they continue to be under observation of the Orthopædic Surgeon, and if he finds it necessary, they continue the treatment that has already been started previous to their attaining school age.

In consequence of this, there has been a diminution in the number of cases requiring operative treatment. In the majority of instances, the treatment has consisted of the continuation of the massage, electrical stimulation, sunlight, and Remedial Exercises already started before they arrive at school age.

The experiment started in the latter part of 1933, dealing with the electrical treatment of children suffering from discharging ears, has now extended over a period of a year, and one can therefore, give an opinion based on a right perspective. From the cases that have been dealt with, I can state that the treatment of chronically discharging ears, has been most successful. Zinc Ionization in some cases over a period of three to four months, has caused the cessation of the discharge, and the children have been able to leave the Clinic with their ears clean and dry, without suffering the inconvenience of having ears discharging freely. In a few of these cases, the ear has been discharging for a considerable number of years, and therefore it is a great pleasure to me to be able to state that these cases have been cured. I can heartily recommend the further development of this scheme. At present, only ten cases are referred to the Electrical Department for treatment. On the experience that we have had, I would strongly advise that a greater number of ear cases be now sent to the Department for the necessary treatment, as I believe that this form of treatment gives better results than treatments that hitherto have been meted out to these patients.

The cases of rickets that have been referred to the Clinic, in all cases shew only a mild degree of the condition. We do not now see the severe cases of bowlegs and knock knees that were so prevalent when the Clinic first started. I attribute this to the early diagnosis of these cases, and their reference to the Child Welfare Clinic. No doubt in a good many instances, the minor degree of rickets present can be attributed to better housing conditions, and a greater knowledge on the part of parents and children, as to the value of fresh air, sunlight, proper clothing and adequate feeding. Consequently, one must acknowledge the great value of those preventative forces which have been initiated by the Medical Officer of Health, in preventing the development of rickets in the children of the town. I refer to the Education of the parents themselves by popular lectures on Hygiene and Public Health, as well as to the Educational Lectures that have been given by various agencies in the town on this subject.

One notices that there has been a diminution in the number of cases of Infantile Paralysis during the past year. There has been no case of this dreaded disease which has caused an initial severe paralysis of the child. They have been mild cases affecting one or two muscles of the body only.

An interesting feature I have noticed is the number of cases of young girls with round backs and stooping shoulders, which have been referred to me. There has not been an instance of a single boy being referred for this condition. There is no organic disease present, and a course of Remedial Exercises and artificial sunlight, over a period of about six months, on an average, has remedied this faulty posture in the girl. The girls who suffer from this condition, I find, are girls who have overgrown their strength, and are tall and somewhat debilitated subjects. No doubt the way they sit at their desks at school has had some effect in producing their rounded backs. This faulty posture requires correction, in view of the fact that these girls with rounded backs, get into the habit of breathing shallowly, and hence become susceptible to attacks of chest trouble in years to come.

I may state that the Department continues to work harmoniously together, the Staff co-operating in such a way as to ensue satisfactory results.

Yours, faithfully,

HARMAN TAYLOR.

F.—Treatment of Uncleanliness.

The “surprise” visits to the schools were carried out as usual during the year.

Altogether 2,365 children were found in a more or less uncleanly condition at these inspections, as follows :—

	Boys.	Girls.	Total.
Nits	133	1825	1958
Unclean body	105	55	160
„ clothing	171	76	247
	409	1956	2365

In addition to the above, however, 59 were in such a state as to warrant exclusion from school (10 boys and 49 girls).

As might be expected, the large majority of cases of pediculosis of the scalp occurred in girls.

The Nurses again tried to obtain a high standard of cleanliness, but still report that in a minority of cases they meet with disappointment, owing to the apparent apathy and indifference of a certain class of parent. Even after many visits to the same homes little improvement is effected in such cases.

In only a few instances could the uncleanly condition of the child be attributed to poverty or to the size of the family.

The Nurses consider there is in general a much higher standard of cleanliness among most of the households visited, partly attributable to greater interest on the part of the parents and partly to the better housing conditions.

But attention must be drawn to the fact that sterner measures will have to be taken with a few of the parents who persist in allowing their children's heads to become re-infected with vermin.

In the new housing areas with every convenience, there is now no excuse for the carelessness prevalent in this respect and full advantage is not being taken of the facilities provided in these houses.

With a certain type of parent, exclusion from school of a child with pediculosis capitis, means nothing more serious than a week's absence from school, and this loss of attendance does not cause them any anxiety. In the aggregate, however, a considerable amount of school attendance is still lost every year on account of exclusion of children with dirty heads. Since the introduction of the use of the Nisska Comb, the school nurses find it is possible to cleanse the worse case of pediculosis capitis in half to one hour and they consider that the exclusion period, hitherto seven days, might now be materially shortened.

In those cases where children of the same family are excluded repeatedly during the year for the same cause, further action will have to be taken. There are at least 16 families that fall into this category.

The following are the particulars of the "surprise" visits for the past 9 years :—

Year	1926	1927	1928	1929	1930	1931	1932	1933	1934
Number of Schools in the Borough	23	23	23	23	23	23	21	22	24
Average number of visits per annum paid by Nurses to school	10	10.17	10.6	9.08	9.56	13.78	11	9	10.3
Total number of examinations made by School Nurses of children	34445	32980	34314	31039	35181	41354	28408	30598	43254
Number of children found unclean (2365), excluded	117	129	75	89	83	101	95	57	59
Number found suffering from minor ailments (125), excluded	31	52	53	50	26	92	33	34	71

Perhaps the incidence of uncleanliness in our schools as discovered at the "Surprise" visits, is better shown in the following table, when it will be seen that there has been marked improvement in the past two years in spite of the higher standard expected :—

1925	1 child unclean in every	445	examined.
1926	.....	294	,,
1927	.....	255	,,
1928	.....	457	,,
1929	.....	347	,,
1930	.....	424	,,
1931	.....	402	,,
1932	.....	299	,,
1933	.....	536	,,
1934	.....	733	,,

Legal Proceedings are taken when necessary under the School Attendance Byelaws, but no action was required last year, although in 18 instances parents were summoned to attend before the School Attendance Committee. A comparison for the past 11 years is shown hereunder :—

No. of cases of Ped. Cap sum-1934	18	12	6	28	13	19	4	14	14	12	20
moned before the Committee	—	—	1	2	*1	1	—	4	4	—	—
No. of cases prosecuted.....	—	—	1	2	—	—	—	2	3	—	—
No. of convictions obtained	—	—	1	2	—	—	—	2	3	—	—

*This case was adjourned and afterwards withdrawn.

G.—Treatment of all Other Defects.

The other defects found at Routine Inspection, except infectious diseases and tuberculosis which are referred at once to the Health Department, received consideration as follows :—

	Referred for treatment.	Treated.	Still under observation	Left School
Malnutrition	17	3	13	1
Bronchitis	6	5	1	—
Curvature of Spine	2	1	1	—
Incontinence	1	1	—	—
Anæmia	4	4	—	—
Total	30*	14	15	1

* This includes 6 from the previous year.

In the first instance we advise these cases to receive treatment from their own doctor. If the parents cannot afford this we assist them in obtaining a recommendation for attendance at the local Infirmary, or, if necessary, from the District Medical Officers of the Public Assistance Committee. The Guild of Social Service, British Red Cross Society, and United Services' Fund have all rendered valuable service in defraying the expense of sending children to special institutions or in providing extra nourishment and clothing.

It will be seen that a large proportion of the cases are due to malnutrition, the result of some inherent defect in the child's constitution, and only rarely due to insufficient diet. In 1933 there were 16 such cases compared with 17 in 1934.

Tuberculosis.

All children suffering from or suspected to be suffering from this disease, are referred to the Tuberculosis Dispensary. It is gratifying to report considerable reduction in the amount of work necessary under this heading (see also page 44).

(a) Dispensary.

During 1934 there were the following examinations :—

	No. of Cases.	No. of Examinations.
Tuberculosis of lungs	11	19
Suspected cases and contacts	112	195
Tuberculosis of glands	41	66
" " abdomen	13	29
" " bones and joints	24	42
Other forms of tuberculosis....	6	16
Totals	207	367
During 1933 there were	251	389

An important point to note is the number of children kept under observation once they have been in contact with an open case of tuberculosis. In 1934, 195 examinations were made of 112 such cases (in 1933—180 examinations of 137 cases).

Treatment has been provided at various institutions, as follows :—

(b) **In Residential Institutions.**

33 children of school age received in-patient treatment at the following institutions :—

Hefferston Grange Sanatorium	....	....	....	....	14
Borough General Hospital	....	....	....	....	16
Warrington Infirmary	....	....	....	....	2
Liverpool Royal Infirmary	....	....	....	....	1
Total	....	....	....	....	33

The cases were as follows :—

Tuberculosis of lungs	....	....	....	....	4
„ „ glands	....	....	....	....	8
„ „ abdomen	....	....	....	....	8
„ „ knee	....	....	....	....	1
„ „ hip	....	....	....	....	2
„ „ spine	....	....	....	....	7
Observation cases	....	....	....	....	3
					33

Of the 33 cases, 24 were discharged during the year, and 9 were still receiving treatment on 31/12/34. The average period of stay was 13 weeks 2 days.

Of the 24 cases discharged, 12 were quiescent, 5 were improved, 3 were not improved, 3 were observation cases found not tuberculous, and 1 died.

17 were fit to return to school, and 4 were placed under Dispensary Supervision, 2 were recommended for treatment at other hospitals.

(c) **Out-patients.**

25 children of school age received out-patient treatment at the following hospitals :—

Warrington Infirmary, 8
Borough General Hospital, 17.

The cases were as follows :—

	Warrington Infirmary.	Borough General Hospital.
Tuberculosis of Cervical Glands	2	7
„ Skin	6	—
„ Bones and Joints	—	9
Observation case	—	1

4 of the 8 cases attending the Warrington Infirmary completed treatment, all were discharged much improved. 1 was admitted to in-patient treatment, 3 were still receiving treatment on 31/12/34.

15 of the 17 cases receiving treatment at the Borough General Hospital completed treatment, 11 were discharged much improved, 3 were recommended for in-patient treatment, 1 ceased attending.

2 were still receiving treatment on 31/12/34.

The 8 cases that attended the Warrington Infirmary for skin treatment and artificial sunlight treatment made 138 attendances. The 17 cases attending the Borough General Hospital Clinic made 308 attendances. The total out-patient attendances were 446.

1 school child was supplied with surgical appliances.

8 school children were supplied with extra nourishments in the form of Milk and Virol.

X-ray Examinations.

These were carried out at the X-ray Department of the Borough General Hospital by the Tuberculosis Officer in conjunction with Dr. Fox. The number of X-ray examinations during the year was 63. This work has been found to be essential for accurate diagnosis.

8.—INFECTIOUS DISEASES.

The measures taken to prevent the spread of infectious disease have been the same as in previous years. The daily visitation of schools by the nurses has assisted this work considerably.

The number of cases of **Notifiable** infectious disease occurring among school children during 1934 is shown in the following table, compared with the previous years:—

Year.	Scarlet Fever.	Diph- theria.	Enteric Fever.	Pulmon- ary Tuber- culosis.	Other Tuber- cular Diseases.	Smallpox.
1922	242	14	2	14	29	—
1923	110	22	2	14	22	—
1924	198	26	2	10	23	—
1925	162	33	1	19	37	—
1926	55	48	1	12	12	—
1927	35	48	—	9	22	2
1928	123	40	—	8	23	—
1929	97	96	1	6	17	—
1930	504	103	1	2	21	—
1931	574	50	—	9	22	—
1932	245	47	—	5	16	—
1933	138	74	—	1	14	—
1934	155	333	—	2	7	—

In common with many other parts of the country, we have experienced an epidemic of diphtheria of a severe type during the past year.

The actual incidence of **tuberculosis** amongst the school children of Warrington as known to us on the 31st December, 1934, was as follows :—

	Attending school.		Not attending school.		Total.
	Males.	Females.	Males.	Females.	
Tuberculosis of Lungs	4	—	2	1	7
„ „ Glands	12	16	—	1	29
„ „ Abdomen	11	1	2	—	14
„ „ Bones and Joints	11	7	2	3	23
Other forms of Tuberculosis..	1	4	—	—	5
Total	39	28	6	5	78

This compares with a total of 90 in 1933 101 in 1932 and 109 in 1931 showing a gradual diminution in the number of cases of tuberculosis in school children. Only 7 cases of surgical tuberculosis were notified during 1934. This is the lowest on record for the Borough and compares with an average of 21 per annum for the past twelve years.

The next table shows the number of cases of **Non-Notifiable** infectious disease, although this does not represent the total number of cases occurring in the town among school children, but only those that came to our notice :—

Year.	Whooping cough. cases.	Chicken-pox. cases.	Mumps. cases.	Sore throat. cases.	Measles. cases.	German Measles. cases.
1921	417	283	175	652	277	8
1922	120	418	681	444	796	—
1923	268	416	371	334	540	5
1924	56	272	65	207	559	233
1925	415	592	325	189	1188	2
1926	146	418	1204	99	179	82
1927	135	457	45	210	636	24
1928	72	418	38	208	479	3
1929	463	586	1445	298	71	48
1930	10	312	1262	311	1345	10
1931	288	547	37	318	82	231
1932	212	271	686	333	739	6
1933	116	513	154	234	130	21
1934	350	646	3	268	1043	59

Measles.

The epidemic which commenced in December, 1933, continued during 1934 until June, during which time 1043 cases were notified.

Chickenpox cases numbered 646 and were in excess of those of 1932. From inquiries made at the homes of school children suffering from chickenpox, 457 were vaccinated out of the 646 patients.

School Closure was not resorted to as a preventive measure for any outbreak of infectious disease in 1934 (Article 45 (b) and 57 of the Code).

Closure is resorted to only in very exceptional circumstances, because as soon as the schools are closed one of our most valuable sources of information regarding sickness among the child population is cut off.

Under Administrative Memorandum No. 51 (dated January, 1927), a certificate was granted in the case of one school for the week indicated during which the attendance fell below 60% owing to the prevalence of infectious disease :—

St. James' Infants, week ending 2nd February, 1934.

In order to minimise as far as possible the risk of conveying infection to school, certain children are referred daily to the Medical Officer of Health. These cases consist of :—

- convalescents from infectious disease ;
- contacts with infectious disease ;
- children who are suspected of infectious disease ;
- children suffering from sore throats ;

and the numbers dealt with in 1934 are shown in the next table :—

CHILDREN EXAMINED BY MEDICAL OFFICER OF HEALTH
AS TO FREEDOM FROM INFECTION.

Disease.	Number of Examinations	Cases Detected.	
		Scarlet Fever.	Diphtheria.
SCARLET FEVER (Convalescents examined as to their fitness to return to School.)	184	—	—
DIPHTHERIA Ditto.	367	—	—
CONTACTS with cases of Diph- theria examined previous to being allowed to attend School after case removed to Hospital.	460	—	9
SORE THROATS (examined previous to being allowed to attend School).	49	—	4
RASH	15	1	—
NASAL DISCHARGE	8	—	2
Totals	1083	1	15

Deaths from Infectious Diseases and all other causes among children of school age during the past 12 years are given in the following table :—

Cause of Death.	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934
Scarlet Fever	—	3	3	1	—	—	—	4	7	1	—	2
Diphtheria	2	1	1	—	—	1	1	5	3	4	1	24
Enteric Fever	—	—	—	—	—	—	—	—	—	—	—	—
Measles	1	—	4	—	1	—	—	2	1	1	2	1
Whooping Cough	—	—	1	1	—	—	—	—	—	—	1	1
Diarrhoea	—	2	2	—	—	—	—	—	—	—	2	—
Tuberculosis of Lungs	6	3	2	3	2	1	5	—	2	2	5	2
Other Tubercular Diseases	4	2	3	2	—	2	1	4	—	2	7	—
Influenza	1	3	—	1	1	—	2	—	—	—	2	—
Accidents.....	2	3	8	5	5	2	4	8	7	7	4	4
All other causes	13	16	29	20	13	19	17	20	18	12	12	19
Totals	29	33	53	33	22	25	30	43	38	29	36	53

The following table shows the number of visits paid by the Sanitary Inspectors to the homes of school children in investigating and supervising outbreaks of infectious disease :—

To premises where cases of Scarlet Fever, Enteric Fever or Diphtheria occurred	488
Re-visits to ascertain if contacts with Scarlet Fever, Enteric Fever and Diphtheria were free from infection and fit to return to School	186
Re-visits to cases of Scarlet Fever, Diphtheria or Enteric Fever being treated at home	78
Visits to premises where there were cases of Measles and German Measles	1102
Re-visits to homes where cases of Measles and German Measles are being treated	1144
Visits to homes of children reported by Education Department as being absent from School, owing to either Whooping Cough, Chickenpox, or Mumps	999
Re-visits to homes of children suffering from either Whooping Cough, Chickenpox, or Mumps	995
Visits to homes of children absent from School with Sore Throat or Suspicious Rash	268
Visits to homes where there were cases of Influenza or Pneumonia	198
Visits to homes of children suffering from Pulmonary and Non-Pulmonary Tuberculosis	351
Total	5,809

9.—OPEN-AIR EDUCATION.

The three new schools are of the semi-open-air type, particularly well ventilated and lighted and capable of being thrown open on two sides. They are well provided with playing space and their favourable environment should be of assistance in promoting the health of the scholars.

In the older schools when circumstances permit, playground classes are organised as there are no class rooms of an open-air type in them.

There is no special day or residential open-air schools available for Warrington children.

10.—PHYSICAL TRAINING.

There is no Area Organiser of Physical Training and such an appointment is not contemplated.

Usually each teacher is responsible for his or her own class.

As far as possible, every child undergoes physical training for a period of twenty minutes each day. The syllabus is based on the Syllabus of Physical Training for Schools issued by the Board of Education in 1919. The Town Hall, Parks and Baths Committee have given permission for the use of Bank Park for organised games during school hours.

All children in classes of an average age of 11 to 11½ years attend the Public Swimming Baths during school hours.

In addition to the physical education in school hours, the teachers have organised competitions in Football (Association and Rugby) Netball, Rounders, Hockey and Swimming, which take place outside of school hours, and are participated in by all the schools.

School Baths have been installed in three of the schools in the town (Bolton Council, Evelyn Street Council and Oakwood Avenue) and full use has been made by the children of the facilities provided.

A special system for the complete purification of the water has been installed in the Public Baths at Legh Street, and parents need have no fear that their children run any risk of contagion there.

In the School Report for 1933, some hints were given for the children using these baths, together with a list of rules that should be observed.

11.—PROVISION OF MEALS.

It has not been found necessary during recent years to exercise our powers under the Provision of Meals Acts, 1906–14. The last time that meals were provided for school children was in the year 1914. The School Medical Officer approved of the suitability of the dietary and general arrangements made, and in many instances selected the children. Special inquiries and observations are constantly made as to the need for providing free meals.

Voluntary schemes for the supply of milk to school children have been in operation in our schools for the past six years, extending from year to year until 1934. It is noteworthy, therefore, that last year it was possible for children to obtain milk in every school except Parochial (Boys) and St. Barnabas' (Mixed).

Once again our best thanks are due to all those teachers who so ably initiated and conducted these schemes.

As it is absolutely essential that any scheme for the provision of milk to growing children should ensure that the supply is free from the tubercle bacillus, we have made it a condition that all supplies should be at least "pasteurised" if not "certified" or "Grade A (T.T.)."

In a few cases dried malted milk has been supplied.

Under these schemes each child had to pay 1d. per day for $\frac{1}{3}$ rd pint of milk, and although in practically every school a limited amount of free milk was granted to necessitous cases a certain number of children in poor circumstances were unable to obtain it.

To some extent, therefore, the scheme of the Milk Marketing Board approved by the Minister of Agriculture to increase the demand for milk by reducing the price of milk drunk in schools to $\frac{1}{2}$ d. for a third of a pint helped to solve the problem.

At the same time the Board of Education directed that the Local Education Authority should consider the desirability of supplementing the existing voluntary milk scheme by themselves arranging for the supply of milk to children who are found by the School Medical Officer to be suffering from sub-normal nutrition and who may, therefore, be regarded as "unable by reason of lack of food to take full advantage of the education provided for them" (Section 84, Education Act, 1921). Free milk was only to be given to those children who were unable to pay for it, but in the remaining cases the parents would be urged to allow milk to be given to the children on payment, if this were not already being done.

Furthermore in Circular 1437, issued in September, 1934, the Board expressed the opinion that it considered that the selection of children should be made by a system of medical selection by the Authority's Medical Officers.

The introduction of the required arrangements was agreed upon, and during the last quarter of the year a careful assessment of the number of sub-normal cases requiring milk was commenced.

This important work considerably interfered with the normal work of routine medical inspection in the schools. The distribution of free milk was inaugurated soon after the winter term.

In the case of sub-normal children $\frac{1}{3}$ rd of a pint of milk in the morning and a similar quantity each afternoon is often required.

The following table shows the approximate numbers of children receiving milk in our schools during 1934, under the original schemes.

It will be noted that the consumption of milk was greatly increased as a result of the introduction, in October, 1934, of the Milk Marketing Board's scheme for reduced prices :—

MILK, 1934.

School.	Dept.	No. on registers at end of year.	Daily Average number of children receiving milk.
Beamont	Boys'	288	83
	Girls'	291	65
	Infants'	248	71
*Evelyn Street	Mixed	297	20 to end of Sept. 124 from Oct. to Dec.
	Infants'	259	62
Fairfield	Girls'	383	91
	Infants'	125	48
Hamilton Street....	Mixed	393	15 Boys' Dept. to 1/9/34. 60 Sept. (includes Girls') 220 from Oct. to Dec.
	Infants'	79	47
Heathside	Girls'	221	54
	Infants'	74	33
Latchford R.C.	Mixed	328	16
St. James'	Mixed	272	93
	Infants'	148	44

MILK, 1934—(continued).

School.	Dept.	No. on registers at end of year.	Daily Average number of children receiving milk.
Oakwood Avenue	Boys'	384	272 from Oct.
	Girls'	336	36 to end of Sept.
			248 from Oct. to Dec.
	Infants'	290	45
St. Alban's	Mixed	306	129 from October
	Infants'	108	33 Milk
			20 to end of Sept.
St. Ann's	Mixed	319	120 from Oct. to Dec.
	Infants'	72	22
St. Benedict's	Mixed	321	61 Before 1/10/34 average was below 15.
	Infants'	212	50
St. Mary's	Boys'	278	12 to end of Sept.
			160 from Oct. to Dec.
	Girls'	278	A few took milk now and again and obtained it from Boys' Department.
	Infants'	147	40
St. Peter's	Infants'	58	47 closed 31/12/34
			9 to end of Sept.
Silver Street	Mixed	395	185 from Oct. to Dec.
	Infants'	89	33
Trinity	Infants'	67	59
Bewsey	S.B.	433	12
	S.G.	414	62
	Junior	384	68
	Infants'	324	78
Richard Fairclough	S.B.	461	286 from Oct.
	S.G.	457	202 from Oct.
Orford	Mixed	192	50
*Bolton	Boys'	438	222 from Oct.
	Girls'	404	203
Parochial	Infants'	180	Receiving Horlick's Malted Milk.
Heathside	Boys'	231	150
Sacred Heart	Mixed	231	No record.
St. Alban's	Infants'	108	75
Bolton	Infants'	491	69
			225

No Milk supplied during 1934 :—

Parochial Boys'.

St. Barnabas' Mixed.

12.—CO-OPERATION OF PARENTS, TEACHERS, SCHOOL ATTENDANCE OFFICERS AND VOLUNTARY BODIES.

(a) Parents.

In 1,820 instances (52.6%) out of 3,490 examinations at routine medical inspections, one or both of the parents were present.

These attendances, which may be looked on as satisfactory, vary greatly according to sex and age of the child being examined. On the average, more than 75% were present for the entrant group, some 56% for the intermediate group, and about 27% for the leaver group.

In the majority of cases the parents act at once on the advice offered, and co-operate willingly in obtaining adequate attention for their children.

Committee Cases and Prosecutions.

Only as a last resort are parents summoned to appear before the School Medical Service Sub-Committee. During 1934 this was required for the following cases:—

Failure to complete payments for spectacles	....	....	6
Failure to obtain medical aid	....	....	1

In none of these cases, however, was it found necessary to prosecute, as the parents consented to do what was required after being interviewed by the Committee.

The steps taken in dealing with uncleanness are given on page 39.

(b) Teachers.

The success of the work of the School Medical Service is due in large measure to the help given by the Teachers, who co-operate, almost without exception, both willingly and usefully at medical inspections, and in the treatment and aftercare of the children.

This is more than ever evident at the present time when so much treatment is being carried out in the schools by the Nurses, for without ready assistance of the Teachers this would not have proved the success that it has.

Once more our best thanks are due to those teachers who are assisting so much in the improvement of the health of their pupils by the distribution of a daily supply of milk.

(c) School Attendance Officers.

I have alluded in previous years to the useful service of the School Attendance Officers, and need only repeat that they have again rendered every assistance possible to our Department.

13.—BLIND, DEAF, DEFECTIVE AND EPILEPTIC CHILDREN.

The following table contrasts the numbers of exceptional children in our area compared with the estimated incidence of certain conditions on the average throughout the country.

Return showing—

- (1) the number of defective children and
- (2) the incidence of the various types of defect per 1,000 children on the registers.
- (3) Board of Education estimate of the average incidence of the defect per 1,000 children for the whole of the country

See also Tables 8cM. in the Appendix, page 75.

			Number of Children	Incidence per 1,000	B. of E. estimate in 1930
Multiple Defect	...	....	4	.32	—
Blind—Totally	...	....	4	.32	.3
Partially	...	....	26	2.12	.9
Deaf—Totally	...	....	7	.57	.7
Partially	...	....	—	—	—
Mentally Defective (feeble-minded)			31	2.53	5.8
Epileptic (Severe)	...	....	20	1.63	.4

Physically Defective.

Pulmonary Tuberculosis	....	7	.57	2.6
Non-pulmonary Tuberculosis	....	59	4.82	1.7
Delicate Children	....	273	22.31	14.7
Crippled Children	....	65	5.31	8.2
Heart Disease	....	55	4.49	—
		551	45.	
Total—Physically Defective	....	459	37.52	

(a) In the 1933 Report a review was given (and need not be repeated here) of the methods adopted for ascertaining and dealing with children who are defective within the meaning of Part V of the Education Act, 1921.

The numbers of exceptional children in 1934 were as follows :—

(i) Blind.	Boys.	Girls.	Total.
At certified schools for the blind	2	2	4
Partially blind (at public Elementary schools)	16	10	26
(ii) Deaf			
At certified schools for the deaf	4	3	7

	Boys.	Girls.	Total.
(iii) Multiple Defects	2	2	4

The cases of multiple defect were :—

Feeble-minded and infantile paralysis	0	2	2
Feeble-minded, T.B., Peritonitis and defective vision	1	0	1
Valvular disease of heart and T.B. hip	1	0	1
	2	2	4

(iv) **Physically Defective.**

Not attending School—

(a) Crippled Children	Boys.	Girls.
Infantile Paralysis	2	1
Rickets	1	1
Spastic Paraplegia	1	—
Pseudo-hypertrophic muscular paralysis	1	—
Spinal Curvature	—	1
Old Amputation (toes)	1	—
Hip Joint Disease	1	—
	7	3
(b) Children with heart disease	2	6
(c) Delicate children	12	12

Attending School—

(a) Crippled Children	Boys.	Girls.
Infantile Paralysis	16	11
Rickets	1	2
Hip Joint Disease	4	1
Under developed upper extremity	1	—
Club foot	5	1
Muscular Weakness (arm, leg)	—	2
Cicatrivial Contracture forearm	1	—
Amputations, foot, leg	1	1
Curvature of spine	2	2
Perthes Disease	—	2
Arthritis	1	—
Ankylosis (elbow)	1	—
	33	22
(b) Children with heart disease	26	21
(c) Delicate Children	100	123

Among the “delicate” children are included such cases as chorea, nephritis, rheumatism, bronchitis, asthma, debility and malnutrition.

For cases of Tuberculosis attending or not attending School, see page 44,

(v) Mentally Defective.

			Boys.	Girls.	Total.
Feeble-minded :					
At Public Elementary Schools	.....	—	—	—	18
Not at school	.....	—	—	—	13
		—	—	—	—
Notified to L.A.	.....	—	—	—	31
Imbeciles	.....	1	1	—	2
Idiots	.....	—	—	—	—
		—	—	—	—
		1	1	—	2

(vi) Epileptic.

At Certified Special School	.....	—	—	—	1
Not at school	.....	—	—	—	19
					20

(b) Arrangements for supervision of mentally defective children not in special schools.

Feeble-minded children who can do so attend at the elementary schools and are inspected by the A.S.M.O. every time he visits the school, i.e., twice a year. Those children who cannot attend an elementary school because of their troublesome behaviour are re-examined periodically at the school Clinic. All cases notified to the Local Authority (ineducables) are also reported to the West Lancashire Association for Mental Welfare, and feeble-minded children who attain 14 years of age are notified to this association also. A further notification is also sent of all M.D. cases on their attaining 16 years of age.

The West Lancashire Association conducts a mental defectives' "occupation centre" in the town, and the School Medical Service co-operates with them in recommending suitable cases and in advising parents to take advantage of the facilities offered.

(c) Special Schools.

There are no special schools in this Borough.

14.—HIGHER EDUCATION FOR BLIND, DEAF, DEFECTIVE AND EPILEPTIC STUDENTS.

At the age of 16 years blind children are transferred to institutions for training. Before this is done, the local Society for the Blind is consulted as to the occupation which is likely to be most suitable for the student, from the point of view of employment in the future.

The local Society for the Blind reports blind adults who are in need of training and arrangements are made for their admission to a suitable institution. Close co-operation is maintained with the Society for the Blind during the period of the student's training.

During 1934 there were 7 persons in training in institutions for the Blind. During the year 5 persons were discharged from training institutions. 3 completed training and 2 of them are employed in brush-making at the Local Workshop for the Blind. One person was discharged as unsuitable for training, and one person died.

There are no Deaf, Epileptic or other Defective children receiving higher education.

There is co-operation with the local Deaf and Dumb Society and the Northern Counties' Association for the Deaf, and the services of the Education Committee's Choice of Employment department are used in finding suitable employment for deaf children when they leave school.

The Local Authority does not maintain any training courses of its own.

15.—NURSERY SCHOOLS.

There are up to the present no Nursery Schools or Classes in the Borough.

Some remarks on this subject in general were embodied in the Report for 1930.

16.—SECONDARY SCHOOL.

There is one Secondary School for boys and girls (Municipal Secondary School) provided by the Authority, and a Secondary School for boys (Boteler Grammar School) which previously was aided by the Authority, has been, since the 26th May, 1933, provided by the Authority.

The arrangements for medical inspection and treatment of the children attending the Secondary School were given in detail in the Report for 1931.

These arrangements have now been extended to the Grammar School too, and the following are some of the results disclosed :—

Secondary School and Boteler Grammar School.

Number of children examined at the routine medical inspection :—

Secondary School—							
Boys	....	....	....	....	....	....	213
Girls	....	....	....	....	....	....	145
Boteler Grammar School—							
Boys	....	....	....	....	....	....	147
							505
Number of Special Inspections							5

The defects found are shown in the Table IIA, page 73 (Secondary Schools) and all these were remedied during the year under review.

NUTRITION.

		Above normal.	Normal.	Below normal.	Markedly defective.
Secondary School—					
Boys	....	48	142	23	—
Girls	....	52	80	13	—
Boteler Grammar School—					
Boys	....	24	95	24	3
		124	317	60	3
		24.6%	62.89%	11.9%	.59%

VISION.

		6/6	6/9	6/12	Wearing glass im- proves.	No glasses.	Requiring treat- ment.
Secondary School—							
Boys	....	159	10	1	34	—	8
Girls	....	111	6	2	24	1	1
Boteler Grammar School—							
Boys	....	100	26	2	12	—	7
		370	42	5	70	1	16
		73.41%	8.33%	.99%	13.88%	.19%	3.17%

The treatment of these defects is shown in table IV, group II, page 79 *et seq.* (Secondary School).

There are no Continuation Schools in the Area.

If and when established it is proposed to extend our present system of Dental and Medical Inspection and treatment to such schools.

17.—PARENTS' PAYMENTS.

(a) In the report for 1933, full details were given of the cost of the various forms of treatment provided for the children and the scale of charges made (if any) to parents.

(b) Arrangements for recovering the cost of treatment from parents of pupils attending the Secondary School are exactly the same as for the public elementary schools.

(c) Parents' contributions towards the cost of maintenance in special schools (Blind, Deaf, etc.) are assessed by the School Attendance Committee according to the income of the family.

18.—HEALTH EDUCATION.

A large amount of health teaching goes on daily in our schools and the handbook of the Board of Education on "Suggestions on Health Education" is in general use.

The Head Teachers found the leaflets and publications of the Health and Cleanliness Council of very great service to them in their efforts to inculcate a hygienic conscience.

19.—SPECIAL INQUIRIES.

1. The health of the Entrant.

For the past 12 years records have been kept of the incidence of defects among "entrants" to our Public Elementary Schools, showing the comparison between those who had previously attended an Infant Welfare Centre and those who had not.

In some of the earlier years the difference between the two categories was marked, those who had attended the centres exhibiting fewer defects when first examined in school than those who had not, in spite of the fact that mothers are more likely to take an abnormal child to the centre than one that they consider normal and healthy.

This difference, however, has become less in recent years, probably due to the intensive work of the health visitors in the homes and to the various facilities offered for treatment of children under school age.

The following table compares the incidence of defects in the two categories :—

Incidence of Defects among Entrants attending Public Elementary Schools in County Borough of Warrington for the years 1923 to 1934, showing comparison of incidence among those who had previously attended an Infant Welfare Centre and those who had not.

Year.	No. of Entrants	No. who attended a Welfare Centre and Percentage.	Attended Centres.			Did Not Attend Centres.		
			No. of children	Defective children and per-	No. of defects	No. who did not attend a Welfare Centre.	No. of defective children percentage of total.	No. of defects found.
1923	995	213 (21.4%)	44	17.3%	37	782	211	245
1924	1344	365 (27.1%)	56	15.3%	57	979	267	324
1925	1401	450 (32.4%)	54	12.0%	54	951	233	254
1926	1537	584 (37.9%)	55	9.4%	60	953	263	308
1927	1185	446 (37.6%)	44	9.8%	44	739	294	343
1928	1516	572 (37.7%)	96	16.7%	96	944	306	380
1929	1443	570 (39.5%)	123	21.5%	125	873	273	351
1930	1297	500 (38.5%)	121	24.2%	133	797	242	317
1931	1397	694 (49.6%)	140	20.1%	156	703	176	351
1932	1418	503 (35.47%)	161	32.0%	163	915	278	362
1933	1344	458 (34.07%)	117	25.54%	139	886	248	282
1934	1143	479 (41.9%)	132	27.55%	149	664	178	200

The next table shows the defects found :—

1934.

No. of entrants examined :

1,143

No. who attended a welfare centre : 479 (41.9%)		No. who did not attend a welfare centre : 664 (58.09%)	
No. in whom defects were found at School Medical Inspection requiring treatment or to be kept under observation :	No. in whom no defects were found :	No. in whom defects were present requiring treatment or to be kept under observation :	No. in whom no defects were found :
132 (27.55%)	347 (72.44%)	178 (26.8%)	486 (73.19%)
Defects :—		Defects :—	
Malnutrition	8 (1.67%)	Malnutrition	8 (1.2%)
Uncleanliness	5 (1.04%)	Uncleanliness	22 (3.31%)
Ringworm	2 (.41%)	Scabies	2 (.3%)
Scabies	3 (.62%)	Impetigo	7 (1.05%)
Impetigo	2 (.41%)	Other conditions of Skin	6 (.9%)
Other Skin Diseases	5 (1.04%)	Blepharitis	3 (.45%)
Blepharitis	4 (.83%)	Corneal Ulcers	1 (.15%)
Squint	8 (1.67%)	Squint	10 (1.5%)
Conjunctivitis	2 (.41%)	Vision	1 (.15%)
Defective Hearing	1 (.2%)	Aural Discharge	2 (.3%)
Aural Discharge	4 (.83%)	Wax	4 (.6%)
Wax	4 (.83%)	Enlarged Tonsils	79 (11.89%)
Enlarged Tonsils	53 (11.06%)	Adenoids	3 (.45%)
Adenoids	2 (.41%)	Tonsils & Adenoids	10 (1.5%)
Tonsils & Adenoids	5 (1.04%)	Defective Speech	4 (.6%)
Other Conditions, Nose & Throat	1 (.2%)	Dental Diseases	7 (1.05%)
Defective Speech	5 (1.04%)	Anæmia	2 (.3%)
Dental Diseases	3 (.62%)	Bronchitis	7 (1.05%)
Heart Disease—		T.B. Perit	1 (.15%)
Organic	1 (.2%)	Chorea	1 (.15%)
Anæmia	1 (.2%)	Epilepsy	1 (.15%)
Bronchitis	4 (.83%)	Rickets	3 (.45%)
Other Non-T.B. Diseases of the Lungs	1 (.2%)	Spinal Curvature	3 (.45%)
Spinal Curvature	3 (.62%)	Other forms of de- formities	5 (.75%)
Other forms of de- formities	9 (1.87%)	Other defects	*8 (1.2%)
T.B. Abdomen	1 (.2%)	*Consisting of—	
Chorea.....	1 (.2%)	Defective Clothing	2*
Rickets	7 (1.46%)	Defective Footgear	2*
Other defects	*4 (.83%)	Mental deficiency	1
*Consisting of—		Chicken Pox	1
Sore Throat	1	Hernia	1
Scarlet Fever	1	Sore Throat	1
Defective Clothing	1		

No routine medical inspections have been instituted for children in the pre-school group but every effort is made to discover defects and to see that such are remedied.

All children are regularly and systematically visited in their homes by the health visitors, and when any defect is discovered or suspected the mother is given a note on a special form to take to her own Doctor and the case is followed up until the result is satisfactory.

In addition approximately 40% of the children attend at one of the Consultation Centres and come under the supervision of the Maternity and Child Welfare Medical Officer. Any cases referred to general practitioners that are not dealt with by them or referred to the voluntary hospital are ultimately dealt with in one or other of the following ways :—

Certain minor ailments at the Consultation Centres.

Children suffering from dietetic ailments in special ward at Isolation Hospital.

Dental cases at special fortnightly session at the Municipal General Hospital.

Tuberculosis cases at special clinic under tuberculosis officer.

Orthopædic cases at special clinic under supervision of Orthopædic Surgeon.

Squint cases, special supervision by the M. & C.W. Medical Officer and referred when necessary to Ophthalmic Surgeon.

Ringworm by arrangement with Radiologist.

General medical or surgical cases at the Borough General Hospital.

Throat, nose and ear defects at special clinic under the charge of a specialist.

A useful factor in assisting with the work of "following up" is the daily "return" of all cases admitted or discharged from the Borough General Hospital or the Infectious Diseases Hospital. From the discharge lists the health visitors are able to pick out all cases in their districts and keep them under special observation until they are completely recovered. The appropriation of the Borough General Hospital has greatly facilitated our work amongst young children, both from the point of view of provision of treatment and of "following-up."

2. An Inquiry into the Nutrition of School Children.

The following is a preliminary report on an inquiry commenced in the latter half of 1934 by Dr. C. A. Paulusz (Assistant School Medical Officer) :—

A systematic investigation into the nutrition of the school children of this town was begun on similar lines to those adopted in many other towns, at the request of the Ministry of Health. One of the Medical Officers of the Ministry (Dr. Magee) visited the town last October and demonstrated certain methods of testing with the object of obtaining data which will be useful for the diagnosis of under-nourishment, apart from the consideration of the height-to-weight ratio, the general appearance, carriage, posture, the condition of the conjunctival mucous membrane, muscular tone, and the amount of subcutaneous fat, etc., which are the usual criteria of which use is made.

The three tests suggested were :—

- (1) Test of the functional efficiency of the voluntary neuro-muscular system.

This test is made use of to ascertain a child's physical efficiency, combined with his will power, and is performed by means of the dynamometer, which is designed so that in using it the greatest effort will be borne by muscles which are in everyday use, viz. :—arm, back, lumbar and thigh muscles.

- (2) Test of equilibrating and co-ordinating (subconscious functions).

The test is performed by getting a number of children to stand at attention with eyes closed for a period of 15 minutes, and noting the effect it has on them during that time. If muscular co-ordination is defective some degree of instability will sooner or later be evident in one or more of the following forms :—Cross swaying, moving the feet, shifting the weight from one foot to another, fidgeting, screwing up the eyes or face, head drooping down on chest or shoulder, sighing (the foregoing signs should persist to be regarded as significant), marked paleness or flushing, sweating, etc.

Any child showing repeated and persistent evidence of instability or distress is withdrawn as quietly as possible and made to sit down, and a note is made of the number of minutes he has endured the test.

- (3) A blood test, for the estimation of the amount of Hæmoglobin in the blood.

As the performance of these tests was undertaken only towards the end of the year, the numbers put through them were not sufficient to publish at this stage, but a full report of the findings should be available for the next Annual Report.

The blood test, however, was made use of by me at Routine Medical Inspections, and also at special examinations in doubtful cases as a deciding factor for determining the number of children having a low percentage of blood hæmoglobin, in all probability due to lack or unsuitability of nourishment. All of those found to have a hæmoglobin content less than 70 to 75 per cent. were recommended for milk in school, bearing in mind the fact that they had been reported by the teachers as apparently "below normal" in one respect or another, that is, showing signs of listlessness, nervousness, drowsiness, lack of muscular tone, etc.

The Dare Hæmoglobinometer which was added to the School Medical Inspection equipment was used for this test.

To use this instrument, however, according to the instructions issued with it, one has to move from the table on which the rest of the equipment is placed, to the darkest corner of the room. When there are several children to be tested, this procedure becomes rather irksome and takes up more time than should be devoted to it, and if the room is well-lighted throughout, the operation is made still more difficult.

In order to overcome these difficulties, I have improvised the following :—

- (1) A holder and stand for the instrument, made out of an ordinary cast-iron laboratory retort stand, with clamps lined with cork and furnished with screws, adjustable in height according to requirements, the whole pivoting on a cast-iron base when necessary.
- (2) A dark "chamber" made of an ordinary packing case (about 20in. $\times$ 16in., blackened on the inside with some quick drying lacquer) which can be placed on the table with its long axis vertical, in which the holder with the instrument is made to stand so as to shut out the light.
- (3) A "cover" or "hood" similar to that used by photographers, made of dark green cloth about 40in. $\times$ 36in., which may be used if the light behind the observer has also to be shut out.

A small electric torch is kept handy, by means of which the observer is able to see the figures recorded on the instrument. With this additional outfit, it is possible for the examiner to sit at his table and work, whilst the child to be tested stands on his left between the nurse and himself.

In the course of my earlier examinations I found that not infrequently the pipettes did not dry rapidly enough after being wiped with the silk handkerchief, and it was necessary to obtain an additional pipette holder besides a few spare pipettes, so as to save time.

Parents were invited to all the inspections and the proportion responding to the invitation to be present was greatest when the younger groups were to be examined, particularly those of the 5-year-old group.

I usually addressed the parents collectively, telling them that I wanted to make a little test of their children's blood so as to detect any early signs of anæmia or other defect relating to nutrition, and that I would have to take a small drop of blood from a finger of each child for the purpose, but if any parent objected to the test it would not be performed on the child. Objections however, were so few in number as to be almost negligible. In dealing with the children a certain amount of tact was necessary, especially in the case of the younger ones, and it was found to be a good policy to select a cheerful and intrepid-looking youngster to start with, assuring him that there would be no pain more than a slight pin-prick. On seeing the first one go through the "operation" with apparently no pain the others lined up quite willingly and took their turn and even showed a certain amount of eagerness to be tested. The older children appeared to take more interest in the whole procedure and even compared the relative figures which they heard read out to the clerk.

The number tested at Routine Medical Inspections was 228 and those tested on special occasions in connection with an inquiry into the state of health of children recommended for milk in school by the Head Teachers numbered 437 making altogether a total of 665 and the results of the tests are shown in the following tables :—

GROUP I.—ROUTINE MEDICAL INSPECTION
AGE GROUP.

% Hb.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	Total.	%.
35-39	—	—	—	—	—	—	—	—	—	—	—	—
40-44	—	—	—	—	—	—	—	—	—	—	—	—
45-50	—	—	—	—	—	—	—	—	1	—	1	.4%
51-55	2	—	—	—	—	1	—	2	2	—	7	3%
56-60	—	—	—	1	—	2	—	3	1	—	7	3%
61-65	1	1	—	1	4	—	—	9	—	—	16	7%
66-70	1	—	—	4	3	1	—	14	3	—	26	11.4%
									Total		57	25%
71-75	—	—	1	7	3	—	—	25	3	1	40	17.5%
76-80	—	2	2	2	8	—	—	25	4	—	43	18.8%
81-85	—	1	—	7	2	2	—	20	—	—	32	14%
86-90	—	—	—	2	—	—	1	20	2	—	25	10.8%
91-95	—	—	—	—	—	—	—	17	1	—	18	7.8%
96-100	—	—	—	—	1	—	—	9	2	—	12	5.2%
101-105	—	—	—	—	—	—	—	1	—	—	1	.4%
									Total		171	75%
	4	4	3	24	21	6	1	145	19	1	228	

Total No. tested, 228.

Number with Hb. below 71-75% = 57 or 25%.

Number with Hb. 71-75% and above = 171 or 75%.

GROUP II.—INQUIRY RE MILK.**AGE GROUP.**

% Hb.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	Total.	%
35-39	—	—	—	—	—	1	—	—	—	—	1	.2%
40-44	—	—	—	—	—	1	—	1	1	—	3	.6%
45-50	1	—	—	1	1	—	—	3	1	—	7	1.6%
51-55	2	—	1	3	1	3	1	2	2	—	15	3.4%
56-60	4	4	5	3	8	2	4	4	5	3	42	9.6%
61-65	6	5	6	10	6	7	7	14	12	1	74	16.9%
66-70	1	5	6	8	10	5	11	9	12	3	70	16%
									Total		212	48.5%
71-75	1	2	4	7	4	3	9	11	17	3	61	13.9%
76-80	3	1	1	1	4	5	3	4	8	1	31	7%
81-85	2	—	2	4	3	5	3	6	9	1	35	8%
86-90	2	3	6	3	2	2	6	9	8	1	42	9.6%
91-95	—	1	6	4	7	6	8	1	6	—	39	8.9%
96-100	—	—	1	1	2	2	5	3	2	—	16	3.6%
101-105	—	—	—	—	—	—	1	—	—	—	1	.2%
									Total		225	51.5%
	22	21	38	45	48	42	58	67	83	13	437	

Total No. tested = 437.

Number with Hb. below 71-75% = 212 or 48.5%.

Number with Hb. 71-75% and above = 225 or 51.5%.

Comparing the results shown in these two groups, it will be seen that the numbers showing a hæmoglobin percentage between 70 and 100 are greater in the Routine Medical Inspection Group (1), than in the Special (Milk) Inquiry Group (2), and the reverse is found in the numbers showing a hæmoglobin percentage between 35 and 70, those of group (1) being less than those of group (2).

It is noteworthy that the accuracy of the results obtained by the aid of the Dare Hæmoglobinometer was tested against a standardised Haldane instrument at the Borough General Hospital, when it was

found that the results with the Dare instrument, generally speaking, varied very slightly from those of the Haldane at the lower concentrations of hæmoglobin, i.e., between 75% and 80%, whereas at higher concentrations the variation was more marked.

Altogether the blood of 14 people was examined, half of whom were patients, and others presumably healthy individuals. From the figures given below, it will be seen that amongst the patients there was a difference in the readings of the two instruments of 4% in one case, 2% per cent. in three cases, and 1% in three cases, whereas amongst the healthy individuals the variations were more marked, viz., 10% in one case, 8% in one case, 5% in two cases, 3% in one case, 1% in one case, and no difference in one case.

An important factor which might have influenced these readings was the light, and it must be noted that there were frequent changes in intensity of the light of the ward at the time the tests were being performed on the healthy individuals, bright and dull periods alternating before a fall of snow occurred—changes which certainly would affect the Haldane instrument for which daylight is essential, but not the Dare instrument, owing to the fact that the darkened cabinet and cover referred to earlier in this report, were used throughout the tests, thus shutting out the daylight altogether and ensuring uniformity of the degree of artificial light.

The following is a list of the comparative readings taken :—

Patient.	Haldane.	Dare.	Variation.
1	38	39	1%
2	36	34	2%
3	59	57	2%
4	70	66	4%
5	77	76	1%
6	29	28	1%
7	62	64	2%
Healthy Persons (tested whilst light was frequently changing).			
1	98	88	10%
2	90	87	3%
3	89	84	5%
4	84	79	5%
5	90	89	1%
6	84	76	8%
7	92	92	Nil.

The conclusion arrived at from our tests was that at lower levels, agreement of the two instruments was good, but that at higher levels the Dare instrument gave readings which were about 5% (average) lower than the Haldane.

C. A. PAULUSZ.

20.—MISCELLANEOUS.

(a) Examination of Bursars, Student and Pupil Teachers.

During 1934, 7 candidates for Student Teacherships were medically examined and found fit by the School Medical Officer.

(b) Number of Children Examined Before Summer Camp.

The total number of children examined by the A.S.M.O. and considered fit to attend the Summer Camp in 1934 was 500, 30 others were examined and found fit to proceed to the "Chronicle" Cinderella Fund Holiday Home, Rossall.

(c) Employment of Children and Young Persons.

The Local Education Authority set up in 1925 a Special Juvenile Employment Committee to exercise the powers under Section 107 of the Education Act, 1921, and Section 6 (1) of the Unemployment Act, 1923.

The main facts are transferred from the child's school medical schedule card to the Juvenile Employment Bureau card. Further, a special full report is submitted in the case of every physically defective or exceptional child applying for employment.

The following figures summarise the work under the Employment of Children Byelaws for the past 7 years :—

Employment of Children Bye-laws.

	1934	1933	1932	1931	1930	1929	1928
Number of Employment Cards in use 1st January	145	133	147	159	174	188	186
Number of Employment Cards issued during the year	165	145	129	134	180	187	196
Number of Employment Cards withdrawn during the year	160	133	143	148	195	201	194
Number of Employment Cards in use 31st December	150	145	133	147	159	174	188
Number of cases of contravention of Bye-Laws	55	61	30	46	70	80	98
Number of cases warned verbally	53	60	28	43	66	77	92
Number of cases warned by letter	2	0	2	3	4	3	4
Appeared before the School Medical Service Committee	0	1	0	0	0	0	2
Prosecutions	0	0	0	0	0	0	0
Number of children examined by Assistant School Medical Officer	170	225	213	205	254	225	261
Number of examinations (of above)	187	281	258	263	304	295	336
Special examinations	0	0	0	0	0	0	0
Not fit for employment	2	1	1	2	0	2	1

Summary of Occupations.

					Boys.	Girls.
Delivery of Newspapers	....	....	....		79	1
Delivery of Milk	....	....	....	....	40	5
Butcher's errands	....	....	....	....	3	—
Fruiterer's errands	....	....	....	....	3	—
Draper's and outfitter's errands		....	....		5	—
Grocer's errands	....	....	....	....	1	1
Baker's errands	....	....	....	....	5	—
Others	....	....	....	....	7	—
TOTAL					143	7

All these children are kept under medical supervision, and doubtful cases are specially examined before a certificate is granted.

From the 1st November, 1933, the Street Trading Byelaws ceased to have effect owing to the provisions of the Children and Young Persons Act, 1933, coming into force. Under this Act no person under the age of 16 may engage in Street Trading.

CHILDREN AND YOUNG PERSONS ACT, 1933.

(Street Trading).

Number of cases of contravention of the Act	....	....	....	24
Number of cases warned verbally	....	....	....	19
Number of cases warned by letter	....	....	....	5
Appeared before the School Medical Service Committee			....	—
Prosecutions	....	....	....	—

Two other noteworthy features with respect to the employment of children took effect for the first time in 1934 :—

- 1 New byelaws were introduced in August (copy appended, page 69 *et seq.*).
- 2 The Employment Insurance Act, 1934, extended the age of insurance to include juveniles aged 14—16 years.

Under this Act Junior Instruction Centres have been opened.

APPENDIX.

BYE-LAWS DEALING WITH THE EMPLOYMENT OF CHILDREN.

EMPLOYMENT OF CHILDREN.

1. For the purpose of these byelaws :—

- (a) the expression “child” means a person under the age of fourteen years, but a person who is attending a public elementary school and who attains the age of fourteen during a school term shall not be deemed to cease to be a child until the end of that term.
- (b) A person who assists in a trade or occupation carried on for profit shall be deemed to be employed notwithstanding that he receives no reward for his labour.
- (c) The expression “local authority” means the local authority for elementary education.

PROHIBITED EMPLOYMENTS.

2. No child shall be employed in any of the following occupations :—

- (a) As a lather boy, or in a similar occupation, in a barber’s or hair-dresser’s shop :
- (b) In the kitchen of any hotel, cook shop, fried fish shop, eating house or refreshment room :
- (c) As a marker or attendant in any billiards or bagatelle saloon, or other place licensed for games, or in any registered club :
- (d) In or in connection with the sale of intoxicating liquors, except in places where such liquors are sold exclusively in sealed vessels :
- (e) In selling programmes or refreshments or other articles, or in selling or taking checks or tickets, or in shifting scenery, in any theatre, music-hall, picture theatre or other place of public entertainment :
- (f) In collecting or sorting rags or refuse :
- (g) As an attendant in any premises or fairground used for the purpose of public amusement by means of automatic machines, mutoscopes, shooting ranges, games of chance or skill, or similar devices :
- (h) In any slaughterhouse :
- (i) In or in connection with any racing course or track or other place where like sport is carried on, or as an assistant in any business conducted therein.

REGULATION FOR EMPLOYMENT.

3. No child under the age of 12 years shall be employed.
4. Subject to the provisions of byelaw 5, no child shall be employed on school days except between the hours of 5.0 p.m. and 7.0 p.m.
5. A child who has attained the age of 12 years may be employed before school between 7.0 a.m. and 8.0 a.m. in the delivery of milk or newspapers subject to the following conditions :—
 - (a) The child shall not be so employed unless within 14 days from the date when the employment begins, the child has obtained from the School Medical Officer a certificate that such employment will not be prejudicial to his health or physical development, and will not render him unfit to obtain proper benefit from his education, and the certificate has been produced to and endorsed by his employer. No charge shall be made for such Certificate.
 - (b) The child shall not be employed after school hours in any occupation for a period of more than one hour between the hours of 5.0 p.m. and 7.0 p.m.
 - (c) The employer shall see that the child is provided during the course of his employment with boots and clothing sufficient to protect him from inclement weather.
6. No child shall be employed on any Saturday or other school holiday for more than four hours or before 7.0 a.m. or after 7.0 p.m. ; provided that the employment shall be so arranged that the child shall be free for rest and recreation for a continuous period of not less than four hours.
7. No child shall be employed on Sunday except in the delivery of milk or newspapers between 7.0 a.m. and 10.0 a.m. for not more than two hours.
8. No child shall be employed except subject to the following conditions :—
 - (a) The employer shall send a written notification to the local authority, stating his name and address, the name, address, and date of birth of the child, the occupation in which, and the place at which the child is employed, and the times at which the employment begins and ends.

 The notification shall be sent before the first day of October, 1934, or, in the case of a child not employed until after that date, within four days after the employment begins.

 The employer shall send to the local authority on the first day of January and the first day of July in every year, a similar notification in respect of each child employed by him on that date.
 - (b) The local authority shall issue to each child in respect of whom such notification has been sent, a card, hereinafter called an "Employment Card," and after such card is issued no child shall be employed unless he has his Employment Card with him. He shall produce the Employment Card for inspection when required to do so by any authorised officer of the local authority.

- (c) The Local Authority shall cause to be entered on the Employment Card the name and address and date of birth of the child, the occupation in which, and the times between which the employment of the child is permitted. The times so entered shall be such as the employer may choose, provided they are such as are allowed by these byelaws, and they may be altered by the local authority from time to time on the application of the employer.
- (d) No child to whom an Employment Card has been issued in accordance with the provisions of these byelaws shall be employed except within the times entered thereon by the local authority.
- (e) The employer shall keep affixed in a conspicuous position in the place in, or in connection with which, the child is employed, a notice showing the name address and date of birth of the child, the occupation in which, and the times within which, the child may be employed on school-days, on Sundays, and on week-days when the school is not open.

9. No child taking part in any entertainment, in pursuance of a licence under Section 22 of the Children and Young Persons Act, 1933, shall be employed on the day or days, of, or the day following, such entertainment, in any other employment.

NOTES.

By section 18 (1) (f) of the Act no child may be employed to lift, carry or move anything so heavy as to be likely to cause injury to him.

Section 126 of the Public Health Act, 1875, provides that any person suffering from any infectious or dangerous disorder who exposes himself without taking proper precautions, or who, being in charge of any person so suffering so exposes the sufferer, shall be liable to a penalty not exceeding £5.

Penalties.

Section 21 of the Children and Young Persons Act, 1933, provides as follows :—

If a person is employed in contravention of any of the provisions of Section 18 of the Act, or of the provisions of any byelaw made thereunder, the employer and any person (other than the person employed) to whose act or default the contravention is attributable shall be liable on summary conviction to a fine not exceeding £5, or in the case of a second or subsequent offence, not exceeding £20.

Dated the 31st July, 1934.

Passed under the Common Seal of the Corporation, in the presence of

A. M. CROWE, *Mayor.*

A. T. HALLAWAY, *Town Clerk.*

I hereby confirm the foregoing Byelaws.

(*Sgd.*) JOHN GILMOUR,

One of His Majesty's Principal
Secretaries of State.

Home Office,
Whitehall,
8th August, 1934,

TABLE I.—RETURN OF MEDICAL INSPECTIONS, 1st JANUARY, 1934, TO 31st DECEMBER, 1934.

FORM 8aM.

A.—*Routine Medical Inspections.*

Number of Code Group Inspections :—

	Age 5		Age 6		Age 7		Age 8		Age 9		Totals
	B.	G.	B.	G.	B.	G.	B.	G.	B.	G.	
Entrants	260	236	290	271	28	34	17	6	—	1	1143
Second Age Group					Age 8		Age 9		Age 10		1106
					Boys	Girls	Boys	Girls	Boys	Girls	
					538	476	48	39	3	2	
Third Age Group							Age 12		Age 13		1241
							Boys	Girls	Boys	Girls	
							571	577	46	47	
TOTAL							{ Boys	....	1801	}	3490
							{ Girls	....	1689		

Number of other Routine Inspections (Secondary Schools) :—

Boys.	Girls.	Total.
360	145	505

B.—*Other Inspections.*

Number of Special Inspections :—

Elementary Schools	....	....	1700*
Secondary Schools	....	....	5

Number of Re-inspections :—

Elementary Schools	....	....	1449
Secondary Schools	....	....	55
TOTAL (other Inspections)	....	....	3209

* These figures do not include 402 special examinations in connection with the provision of milk.

TABLE II. (A.)

FORM 8bM.

RETURN OF DEFECTS FOUND BY MEDICAL INSPECTION IN
THE YEAR ENDED 31st DECEMBER, 1934.

Defect or Disease. (1)	ELEMENTARY SCHOOLS				SECONDARY SCHOOL			
	Routine Inspections.		Specials.		Routine Inspections.		Specials.	
	No. of Defects.		No. of Defects.		No. of Defects.		No. of Defects.	
	Requiring treatment	Requiring to be kept under observation but NOT requiring treatment.	Requiring treatment.	Requiring to be kept under observation but NOT requiring treatment.	Requiring treatment	Requiring to be kept under observation but NOT requiring treatment.	Requiring treatment.	Requiring to be kept under observation but NOT requiring treatment.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Malnutrition	13	44	1	6	....	2	....	....
Skin	Ringworm :							
	Scalp .....	....	....	....	....	....	....	....
	Body	2	....	....	....	....	....	....
	Scabies	7	....	....	....	....	....	....
	Impetigo	18	....	1	....	....	....	....
Eye	Other Diseases (non-Tuberculous)	14	....	4	....	....	....	....
	Blepharitis	18	....	5	....	....	....	....
	Conjunctivitis	6	....	2	....	....	....	....
	Keratitis .....	....	....	1	....	....	....	....
	Corneal Opacities .....	....	1	....	....	....	....	....
	Defective Vision..... (excluding Squint)	168	1	138	4	15	2	....
	Squint	14	2	38	5	....	....	....
Ear	Other Conditions	3	....	....	....	1	....	....
	Defective Hearing ....	....	3	....	5	....	....	....
	Otitis Media	2	....	3	2	....	....	....
Nose and Throat	Other Ear Diseases	20	1	34	2	....	....	....
	Chronic Tonsillitis only	95	101	107	16	....	2	....
	Adenoids only	7	4	16	3	....	....	....
	Chronic Tonsillitis and Adenoids	15	5	59	5	....	....	....
Enlarged Cervical Glands (Non-Tuberculous)	Other Conditions .....	....	3	1	2	....	....	....
		....	5	....	....	....	....	....

TABLE II. (A.)—*continued.*

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Defective Speech .....	....	9	....	4	....	....	....	....
Heart and Circulation {	Heart Disease :							
	Organic .....	....	2	....	....	3	....	....
	Functional .....	....	5	....	2	....	....	....
	Anæmia	4	1	1	....	....	....	....
Lungs {	Bronchitis	4	8	1	1	....	....	....
	Other Non-Tuberculous Diseases ....	....	2	....	....	....	....	....
Tuber- culosis {	Pulmonary :							
	Definite .....	....	....	....	....	....	....	....
	Suspected .....	....	....	....	....	....	....	....
	Non-Pulmonary :							
	Glands .....	....	....	....	....	....	....	....
	Spine .....	....	....	....	....	....	....	....
	Hip .....	....	....	....	....	....	....	....
	Other Bones and Joints .....	....	....	....	....	....	....	....
	Skin .....	....	....	....	....	....	....	....
	Other Forms .....	....	....	....	1	....	....	....
Nervous System {	Epilepsy	1	....	....	....	....	....	....
	Chorea	2	3	....	3	....	1	....
	Other Conditions.....	....	....	....	4	....	....	....
Deformities {	Rickets	10	....	4	....	....	....	....
	Spinal Curvature	12	3	3	3	....	....	1
	Other Forms	3	1	21	3	....	1	2
Other Defects and Diseases (Excluding Uncleanliness and Dental Diseases)		31	8	4	14	....	....	....
Totals.....		469	212	444	85	16	9	4
								2

FORM 8bM.

WARRINGTON C.B.

C.—Classification of the Nutrition of Children inspected during the year in the Routine Age-Groups.

ROUTINE AGE-GROUP INSPECTIONS.

Age-Groups.	Number of children inspected	A.		B.		C.		D.	
		(Excellent)		(Normal)		(Slightly sub-normal)		(Bad)	
		No.	%	No.	%	No.	%	No.	%
Entrants	1143	79	6.82	989	86.52	59	5.16	16	1.4
Second Age-Group	1106	114	10.3	886	80.1	89	8.05	17	1.53
Third Age-Group	1241	133	10.72	938	75.58	141	11.36	29	2.33
Other Routine Inspections (Secondary Schools)	504	124	24.6	317	62.89	60	11.9	3	.59
Total	3994	450	11.26	3130	78.36	349	8.74	65	1.62

TABLE III.—RETURN OF ALL EXCEPTIONAL CHILDREN
IN THE AREA. FORM 8cM.

BLIND CHILDREN.

At Certified Schools for the Blind.	At Public Elementary Schools.	At other Institutions	At no School or Institution.	Total.
4	—	—	—	4

PARTIALLY BLIND CHILDREN.

At Certified Schools for the Blind.	At Certified Schools for the Partially Blind.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
2	—	24	—	—	26

DEAF CHILDREN.

At Certified Schools for the Deaf.	At Public Elementary Schools.	At other Institutions	At no School or Institution.	Total.
7	—	—	—	7

PARTIALLY DEAF CHILDREN—NIL.

MENTALLY DEFECTIVE CHILDREN.

FEEBLE-MINDED CHILDREN.

At Certified Schools for Mentally Defective Children.	At Public Elementary Schools.	At other Institutions	At no School or Institution.	Total.
—	18	—	13*	31*

* This figure includes 9 children between the ages of fourteen and sixteen years.

EPILEPTIC CHILDREN.

CHILDREN SUFFERING FROM SEVERE EPILEPSY.

At Certified Special Schools.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
1	—	—	19	20

PHYSICALLY DEFECTIVE CHILDREN.

A. TUBERCULOUS CHILDREN.

I.—CHILDREN SUFFERING FROM PULMONARY
TUBERCULOSIS.

(Including pleura and intra-thoracic glands.)

At Certified Special Schools.	At Public Elementary Schools.*	At other Institutions.	At no School or Institution.	Total.
—	4	2	1	7

II.—CHILDREN SUFFERING FROM NON-PULMONARY
TUBERCULOSIS.

(This category should include tuberculosis of all sites other than those shown in (I) above.)

At Certified Special Schools.	At Public Elementary Schools.*	At other Institutions.	At no School or Institution.	Total.
—	51	8	—	59

* It is essential that tuberculous children who are, or may be, a source of infection to others should be promptly excluded from Public Elementary Schools.

B. DELICATE CHILDREN.

At Certified Special Schools.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
---	248	1	24	273

C. CRIPPLED CHILDREN.

At Certified Special Schools.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
—	55	—	10	65

D. CHILDREN WITH HEART DISEASE.

At Certified Special Schools.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
—	47	—	8	55

MULTIPLE DEFECTS.

		Boys.	Girls'.	Total.
Feeble-minded and Infantile Paralysis	At Public Elementary School	—	1	1
Feeble-minded and Infantile Paralysis	At no School or Institution	—	1	1
Feeble-minded, T.B. Peri- tonitis and Myopic Astigmatism	At Public Elementary School	1	—	1
Rheumatism, Valvular Dis- ease of the Heart and T.B. Hip	At Public Elementary School	1	—	1
	Totals	2	2	4

TABLE IV.—RETURN OF DEFECTS TREATED DURING THE
YEAR ENDED 31st DECEMBER, 1934.

FORM 8dM.

TREATMENT TABLE.

GROUP I.—*Minor Ailments*
(excluding Uncleanliness, for which see Group VI.) :—

Defect or Disease. (1)	Number of Defects treated or under treatment during the year.		
	Under the Authority's Scheme (2)	Otherwise (3)	Total (4)
<i>Elementary Schools—</i>			
<i>Skin—</i>			
Ringworm—Scalp.			
(i) X-Ray Treatment	4	—	4
(ii) Other „	6	—	6
Ringworm—Body	23	3	26
Scabies	—	41	41
Impetigo	197	15	212
Other Skin Diseases	—	8	8
<i>Minor Eye Defects—</i>			
(External and other, but excluding cases falling in Group II.)	83	14	97
<i>Minor Ear Defects</i>	18	2	20
<i>Miscellaneous—</i>			
(e.g., minor injuries, bruises, sores, chilblains, etc.)	33	55	88
Total	364	138	502

TABLE IV.—Continued.

GROUP II.—*Defective Vision and Squint (excluding Minor Eye Defects treated as Minor Ailments—Group I.).*

Defect or Disease	Number of Defects dealt with.			
	Under the Authority's Scheme.	Submitted to refraction by private practitioner or at hospital, apart from the Authority's Scheme.	Other-wise.	Total.
(1)	(2)	(3)	(4)	(5)
<i>Elementary Schools—</i>				
Errors of Refraction (including Squint)	329	—	74	403
Other Defect or Disease of the Eyes (excluding those in Group I.)	—	—	—	—
Total	329	—	74	403
<i>Secondary School—</i>				
Errors of refraction (including Squint)	5	—	9	14
Other Defect or Disease of the Eyes (excluding those recorded in Group I.)	—	—	—	—
Total	5	—	9	14

Total number of Children for whom Spectacles were prescribed :—

		Elementary Schools.	Secondary School.
(a) Under the Authority's Scheme		267	5
(b) Otherwise		†64	8

Total number of Children who obtained or Received Spectacles :—

(a) Under the Authority's Scheme	256	5
(b) Otherwise	†64	8

† Includes 4 repairs.

TABLE IV.—Continued.

GROUP III.—*Treatment of Defects of Nose and Throat :—*

NUMBER OF DEFECTS.				
Received Operative Treatment.			Received other forms of Treatment	Total number treated
Under the Authority's Scheme in Clinic or Hospital	By Private Practitioner or Hospital, apart from the Authority's Scheme	Total		
(1)	(2)	(3)	(4)	(5)
<i>Elementary Schools—</i>				
Tonsils only.	Adenoids only.	Tonsils & Adenoids.	Total	
124	20	64	208	5
				213
			54	267
<i>Secondary School—</i>				
—	—	—	—	—

GROUP IV.—*Orthopaedic and Postural Defects.*

	Under the Authority's Scheme (1)			Otherwise. (2)			Total number treated.
	Residential treatment with education. (i)	Residential treatment without education. (ii)	Non-Residential treatment at an orthopaedic clinic. (iii)	Residential treatment with education. (i)	Residential treatment without education. (ii)	Non-residential treatment at an orthopaedic clinic. (iii)	
Number of children treated	—	—	176	—	—	7	183

GROUP V.—*Dental Defects :—*

ELEMENTARY SCHOOLS.

(1) Number of Children who were :—

(a) Inspected by the Dentists :—

Aged :

Routine Age Groups	5		240	} Total 7810
	6	....	997	
	7	....	1052	
	8	....	1263	
	9	....	1302	
	10	....	1190	
	11	....	763	
	12	....	423	
	13	....	500	
	14	....	80	

Specials 1774

Grand Total 9584

TABLE IV.—Continued.

GROUP V.—*Dental Defects—cont.* :—

(b) Found to require treatment	....	....	....	....	7493
(c) Actually treated	....	....	....	....	4651
(2) Half-days devoted to	{	Inspection	 177	}	Total 872
		Treatment	 695		
(3) Attendances made by children for treatment	....	....	....	....	5837
(4) Fillings	{	Permanent teeth	1785	}	Total 1852
		Temporary teeth	67		
(5) Extractions	{	Permanent teeth	1480	}	Total 6933
		Temporary teeth	5453		
(6) Administrations of general anæsthetics for extractions	....	....	....	....	1020
(7) Other operations	{	Permanent teeth	75	}	Total 78
		Temporary teeth	3		

SECONDARY SCHOOL.

(1) Number of Children who were :—

(a) Inspected by the Dentist :

		Aged :			
Routine Age Groups		{	10	 11	Total 482
			11	 64	
			12	 79	
			13	 91	
			14	 93	
			15	 74	
			16	 42	
			17	 18	
			18	 9	
			19	 1	
Specials					5
Grand Total					487

(b) Found to require treatment 313

(c) Actually treated 187

(2) Half-days devoted to	{	Inspection	 9	}	Total 50
		Treatment	 41		
(3) Attendances made by children for treatment	....	....	....	....	356
(4) Fillings	{	Permanent teeth	 305	}	Total 305
		Temporary teeth	 —		
(5) Extractions	{	Permanent teeth	 55	}	Total 73
		Temporary teeth	 18		
(6) Administrations of general anaesthetics for extractions	....	....	....	....	2
(7) Other operations	{	Permanent teeth	 20	}	Total 20
		Temporary teeth	 —		

TABLE IV.—Continued.

GROUP VI.—*Uncleanliness and Verminous Conditions* :—

(i)	Average number of visits per school made during the year by the School Nurses	....	....	....	....	8
(ii)	Total number of examinations of children in the Schools by School Nurses	....	....	....	....	43,254
(iii)	Number of individual children found unclean	....	....	....	....	2,365
(iv)	Number of children cleansed under arrangements made by the Local Education Authority	....	....	....	....	—
(v)	Number of cases in which legal proceedings were taken :—					
	(a) Under the Education Act, 1921	....	....	....	....	—
	(b) Under School Attendance Byelaws	....	....	....	....	—

STATEMENT OF THE NUMBER OF CHILDREN NOTIFIED DURING THE YEAR ENDED 31st DECEMBER, 1934, BY THE LOCAL EDUCATION AUTHORITY TO THE LOCAL MENTAL DEFICIENCY AUTHORITY.

DIAGNOSIS.		BOYS.	GIRLS.
1.	(i) Children incapable of receiving benefit or further benefit from instruction in a Special School :		
	(a) Idiots	—	—
	(b) Imbeciles	1	—
	(c) Others	—	—
	(ii) Children unable to be instructed in a Special School without detriment to the interests of other children :		
	(a) Moral defectives	—	—
	(b) Others	—	1
2.	Feeble-minded children notified on leaving a Special School on or before attaining the age of 16	—	—
3.	Feeble-minded children notified under Article 3, <i>i.e.</i> , “special circumstances” cases	—	—
	<i>Note.</i> —No child should be notified under Article 3 until the Board have issued a formal certificate (Form 308M) to the Authority		
4.	Children who in addition to being mentally defective were blind or deaf	—	—
	<i>Note.</i> —No blind or deaf child should be notified without reference to the Board—see Article 2, proviso (ii).		
GRAND TOTAL		1	1